

Flight, July 15, 1911.

FLIGHT

First Aero Weekly in the World.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.

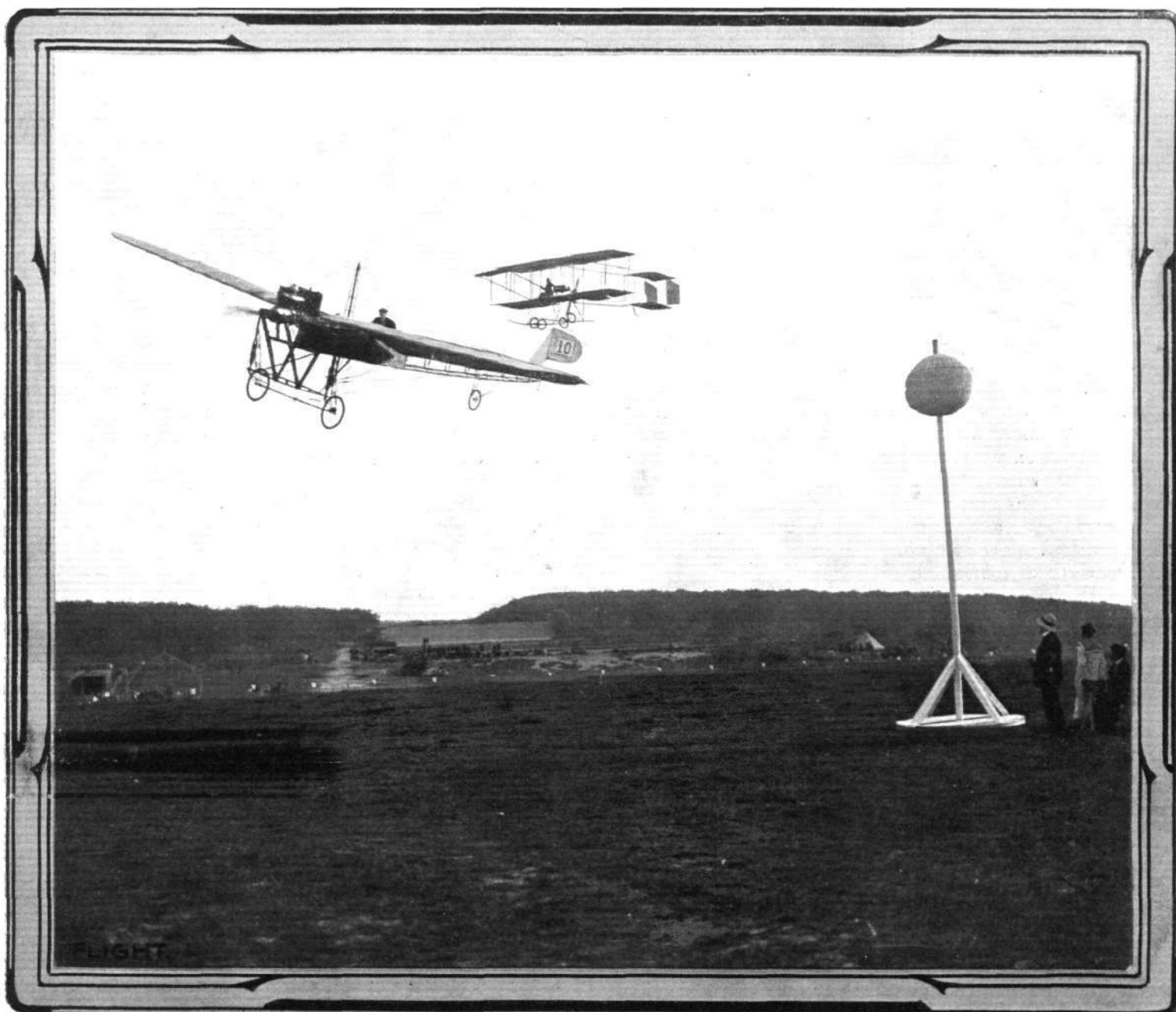
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"CHASSÉ-CROISÉ" IN THE AIR.—Reminiscence of an incident—one of many similar daily—at Rouen Aviation Meeting last year. Dubonnet, on his Tellier monoplane, crossing under Capt. Dickson on his Henry Farman biplane.

THE MAKING OF HISTORY.

IF there is one thing more than another that stands out in naked clearness in the records of 1911—even though but half the year has gone—it is that it has been and promises still more to be a year in which history has been made apace in things aerial. Possibly there has been nothing done which stands out so luridly as for example the London to Manchester flight of last year. Such a performance as that has become absolutely common-place now and we can see our readers raise their eyebrows in astonishment that we should dream of comparing at this stage Paulhan's historic flight with what has been done this year, but then it must be remembered that his performance was rendered startling by contrast with later doings, inasmuch as not until the flight had actually been accomplished did the man in the street believe that such a thing could be done. Nowadays he would look upon flying from London to Manchester as being quite an ordinary sort of feat. It is in this alteration in the standpoint from which the ordinary citizen regards flying that so much history has been made during the present year and why we may justly regard 1911 as marking a distinct epoch in the making of flight as a science. No longer is it possible for the most unlearned in the mysteries of aerial navigation to doubt its future—or at least to doubt that it has possibilities that were undreamed of even three short years ago. Even the bureaucrats who hold in their hands the fortunes of our fighting services must almost realise that so much history has been made that whether they like it or not, the time has come when the nation will no longer be content with the policy of the ostrich.

Let us glance casually at the main causes which have assisted, both in the past and the immediate future, to make that history of which we have spoken. Taking first that which has gone before, the European Circuit has done much to bring about the altered viewpoint from which the public regards aviation and its collaterals. Even flights like those of Paulhan and Prier leave the ordinary observer more or less cold as soon as the immediate excitement has had a chance to wear thin and opportunity has been given for the examination of the circumstances surrounding the occurrence. Such performances are, after all, but the feats of the isolated individual. They are none the less magnificent, but they leave the impression on the uneducated mind—uneducated, that is, in the aerial sense—that they are simply acrobatic feats carried out by a single daring and skilful individual with no small amount of assistance from fortuitous circumstances. Therefore, the lasting effect is but relatively small except upon those within the charmed circle. But such an event as the European Circuit is in an entirely different category. While it is quite possible that one man might, by a happy combination of circumstances, achieve such a performance as the circling of Europe without demonstrating that the aeroplane is anything more than an ingenious instrument which can do surprising things on occasion, the fact that a round dozen of aviators can accomplish such a circuit, practically to time-table and with fewer accidents than the motor car would have met with during the same journey when it was at the same stage of development as the aeroplane is now, surely conveys to the most doubting a lesson of considerable depth and meaning.

While we would not for a single instant belittle the performances of those who took part in the circuit, nor discount the valuable demonstration of efficiency and

reliability of the aeroplane which it provided, we still think that the event left a great deal to be desired from the point of view of improving the aeroplane. It was a case of get there somehow. If one machine broke down on the way, then another could be taken by the aviator who had money and enterprise enough behind him to provide another. Although it is quite true that many of the machines went through the tour, there was nothing to prevent a competitor having a fresh machine for every stage of the contest, so that it resolved itself rather into a competition between men than machines. In an event organised in this way the most salient of the lessons which could be learnt are apt to be lost to sight in the hurry of the thing. An engine breaks down or some constructional defect develops. Never mind the cause; another machine is at hand, and the main thing is to complete the stage, not to worry about cause and effect of breakdown. We do not say this in any spirit of criticism, for it is easy enough to be wise after the event and the time to criticise is before. What we wish to make clear is that the lessons of the race would have been far more valuable and far more likely to be taken to heart had the conditions been different to what they were.

In this regard we cannot help thinking that the conditions under which the European Circuit was carried out compare to their disadvantage with those governing the race for the *Daily Mail* prize, which even more than anything that has happened hitherto, is destined to make history in the world of the air. Here we have conditions which are as near the ideal as it is possible to imagine them at this stage. Not only will it be a test for the men but equally so for their machines, for the aeroplane which starts out for this event must be the one to finish if it is to qualify for an award. It is an altogether admirable condition, if only for the reason that it will encourage the building of machines which are reliable and therefore commercial, rather than the laying down of freak machines designed simply for speed and with the sole idea of winning the prize. The point has evidently been kept well in mind that it is not so much the men that it is necessary to test as the machine. This is as it should be. What we require now is the kind of event which will drive home the lesson that aviation as a mode of locomotion has really and truly arrived and is with us to stay. It is possible to argue that the European Circuit alone was sufficient to demonstrate that fact so far as the man in the street is concerned. But we have to remember that the person we want to interest for the good of the movement is not precisely he who passes under the generic name of the general public, but that section of it which examines things with an analytical eye and is not content to take things as they appear to the casual viewer. He insists on knowing all there is to know about things before he will consent to pass final judgment—and very rightly so. It is one thing to show that an individual can, with the aid of half a dozen machines and car-loads of spare parts in attendance, cover a thousand miles in a given time. It is quite another to demonstrate in what time a single machine can cover a similar distance and to have available a graphic record of what it was necessary to do to enable it to achieve the performance. For these reasons we are inclined to place the *Daily Mail* circuit far ahead of any other similar event which has gone before or of which we have knowledge for the future. It will be a truly epoch-making event.

FLIGHT PIONEERS.

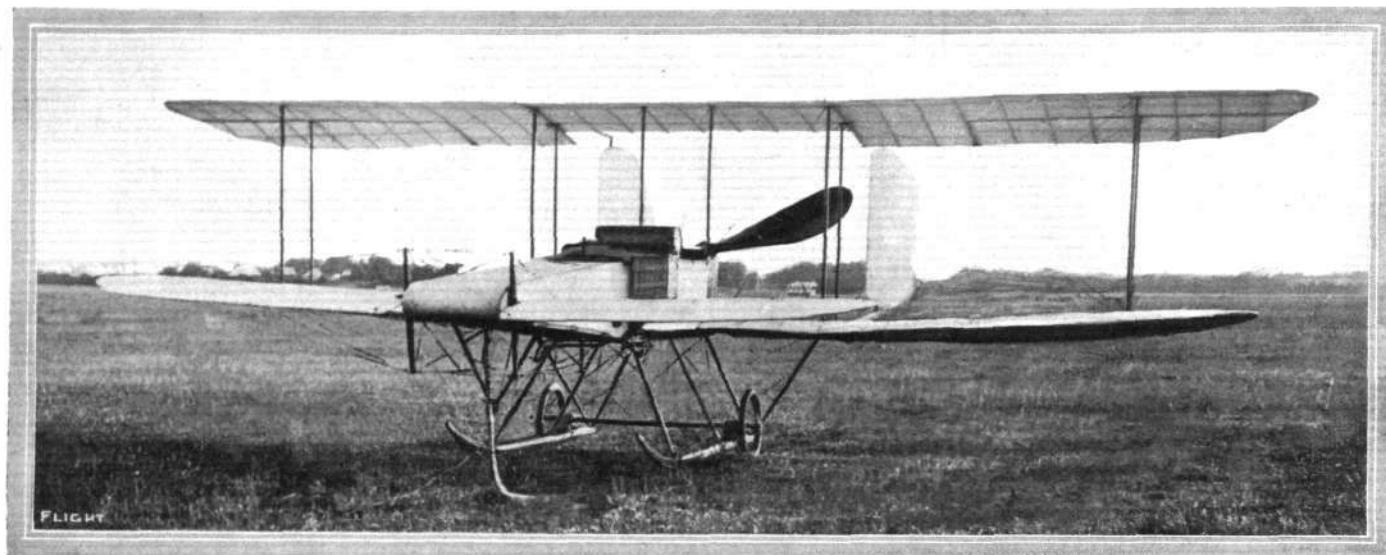


LIEUT. CONNEAU ("BEAUMONT"),
The Winner of the European Circuit.

THE NEW ARMY BIPLANE.

FOLLOWING up the details which we have already published regarding the experimental biplane, built in the Army aircraft factory at Farnborough, we are now able to give some photographs of it, as well as scale drawings, which give a very good idea of the

ailerons, the connecting wires to which, on their way from the rocking lever, pass through the radiator. The ailerons have both the inside edges fixed to the main plane as on the Paulhan machine. It will be noticed that springs are fitted at the connection of the

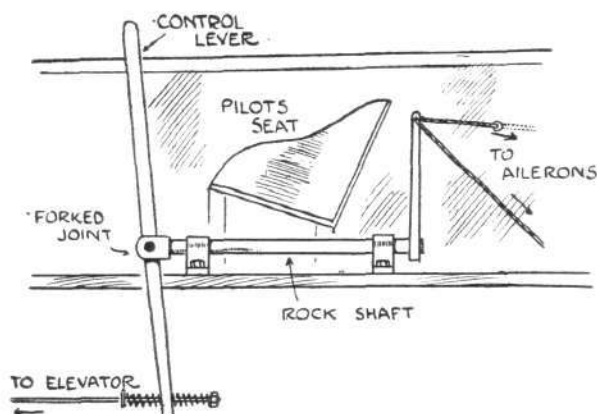


THE NEW ARMY BIPLANE.—View from in front.

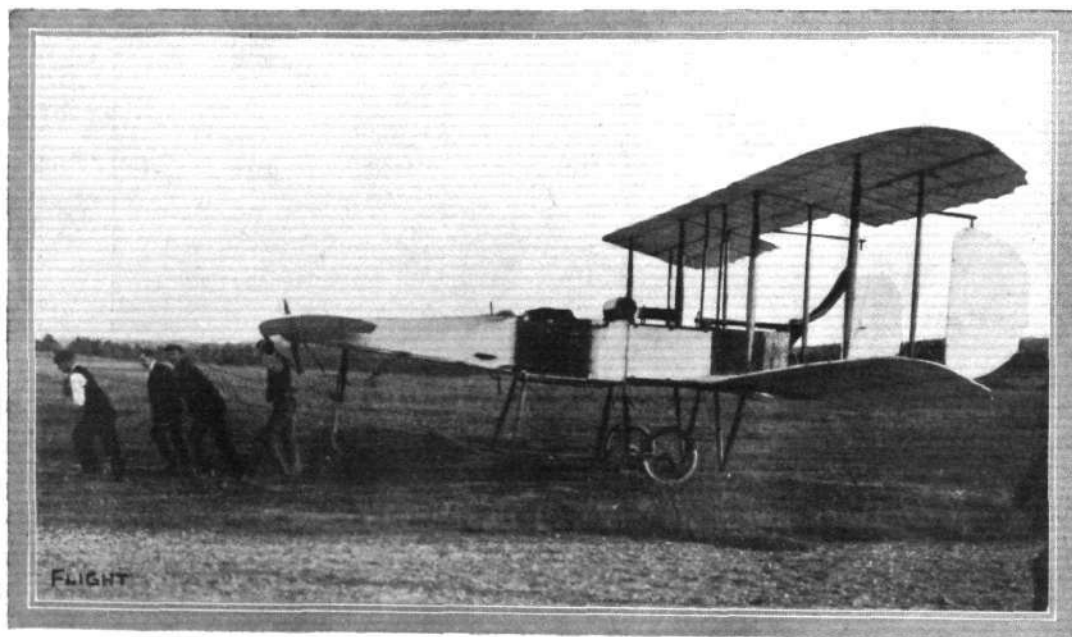
machine in its present state. It is of course inevitable that, being an experimental machine, this latest production of the Farnborough factory should undergo a good deal of modification as the result of the tests which are being carried out with it, but we think our readers will appreciate these further details which we have been able to obtain. Although in several parts it is reminiscent of various successful types, the machine embodies many original features, and the actual performance of it will be watched with close attention by all engaged in the study of aviation.

It is unnecessary to give the dimensions in detail here as they are all clearly shown on the drawings, but it may be pointed out that the lower plane is 2 ft. less span than the upper one, while it also has a slight dihedral angle, as can be seen from the view from in front of the machine. Another point to which attention might be drawn is the substantial nature of the main struts. They are all of stream line section, and at the thickest part the dimensions are 5 ins. by 1½ ins. All the sockets on the machine are of welded steel.

The details of the control mechanism are given in a separate sketch. By a backwards and forwards motion the control lever operates the elevator, while a sideways movement warps the



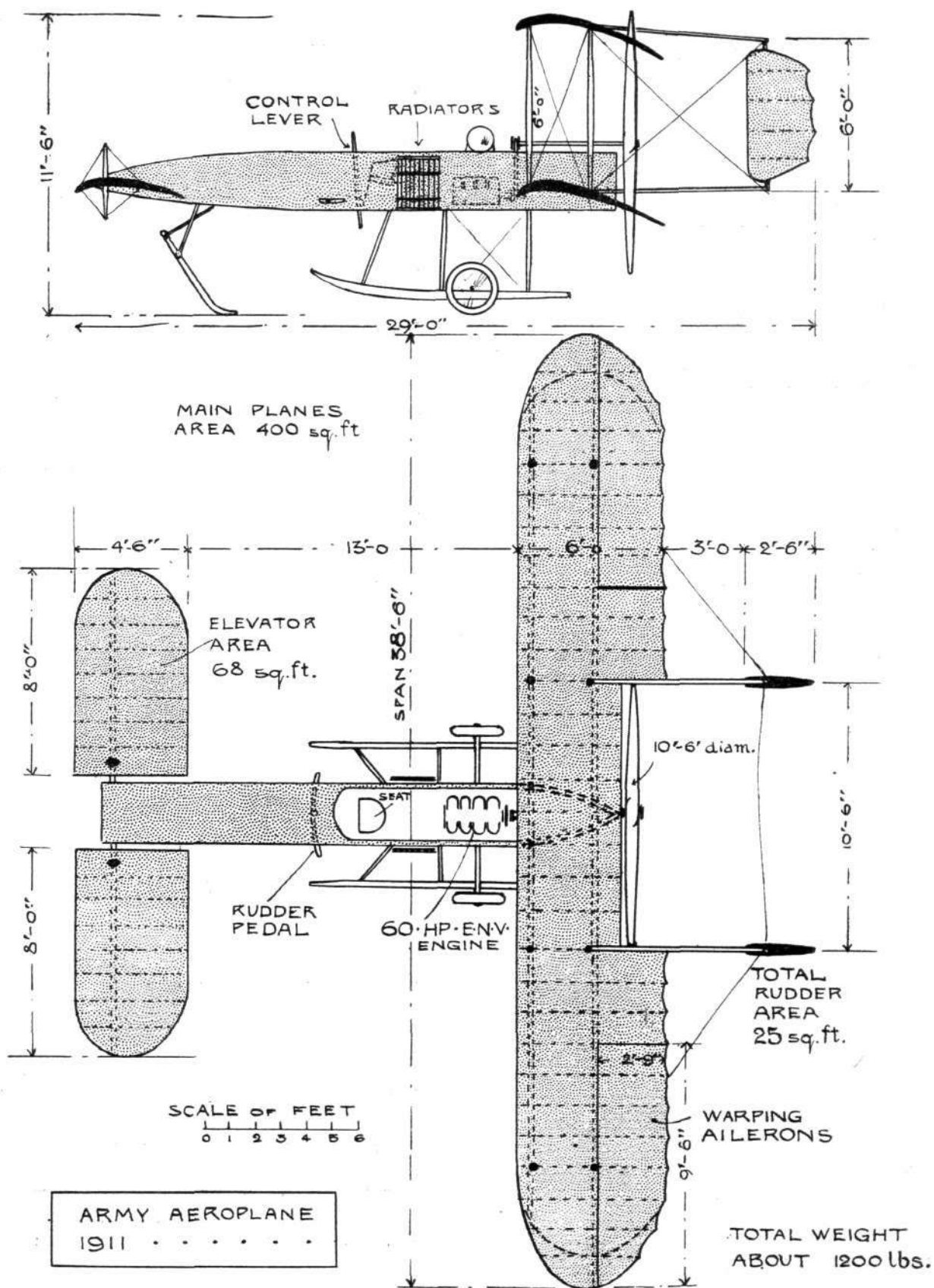
THE NEW ARMY BIPLANE.—Section through body of machine, showing arrangement of control.



THE NEW ARMY BIPLANE.—Side view.

elevator rod with the control lever in order to damp out any sudden shocks on the elevator. The rudders are operated by means of a pedal. As we mentioned in our last issue, the rudders have been carried in nearer the main planes, in fact, their original position was nearly twice their present distance from the trailing edge. The propeller-shaft is carried in bearings mounted on the upper framework of the fuselage and is geared down so that it normally runs at about 800 revolutions.

Since the initial appearance of the machine the undercarriage has been considerably altered, and in addition to placing the flexible skid at the forward end of the fuselage, four additional struts arranged "V" fashion have been fitted at the rear end of the main skids.



THE NEW ARMY BIPLANE.—Plan and elevation to scale.

FROM THE BRITISH FLYING GROUNDS.

Royal Aero Club Flying Ground, Eastchurch.

EASTCHURCH aviators have been busy during the week; the Naval officers have spent a good deal of time in the air practising the *vol plané* from high altitudes, with the engine stopped, and choosing their landing ground *en route*. The necessity for such practice was impressed upon all after Lieut. Gregory's enforced descent of last week, when, meeting with violently-disturbed air currents at 1,000 ft., he decided the best thing to do was to dive, and promptly made a *vol plané*, coming down the whole way with his engine switched off, and making a most skilful landing in the best part of the ground.

On Wednesday, after circling round the aerodrome for an hour and a half, Lieut. Samson completed his flight with a splendid spiral glide from a considerable altitude, making three convolutions before reaching the ground. Lieut. Gerrard, who was also flying, tried very successfully alighting on a spot chosen whilst flying, and before the gliding angle had been given to the machine. This is by no means an easy thing to do without practice, entailing as it does the judging of the angle at which the descent must be made, which is quite a different thing to diving first and then observing the spot on which the machine must eventually alight.

Lieuts. Samson and Gerrard on Thursday on Short biplanes, and Mr. Alec Ogilvie on the "Baby" Wright, were flying together over Leysdown. The N.E.C. engine of the "Baby" was as usual in an excellent frame of mind, and Mr. Ogilvie was indulging in those graceful right and left-hand turns which the Wright machines are so well adapted for. The spectacle of the three machines gracefully manoeuvring at a height of some 700 ft. and lit up by the glow of the setting sun, made a fine picture, and was watched with great interest by the country people.

A second journey to Dover and back, this time to witness the departure of the European Circuit men, was made by Lieuts. Samson and Longmore on Wednesday, the previous run having been made by Lieuts. Samson and Gerrard on Monday. Starting at about five o'clock against a light south-easterly wind, the two aviators flew steadily in the direction of Dover, which place they reached without incident. The arrival at Dover was a most opportune one. The European Circuit aviators were not disposed to do more flying than absolutely necessary, in view of the important stage of their journey on which they would start on the following

day, and the large concourse of people who had collected in the hopes of witnessing some flying were disappointed in consequence. They might, also, have been feeling regret at there being so little of the English element in the band of aviators they had collected to watch, as the Bristol biplane was the only machine to represent British manufacturers. Something of a gloom had settled on the crowd, when suddenly the hum of propellers was heard, and two small dark objects—clearly aeroplanes—were seen outlined against the sky to the north-west. At once speculation was rife as to who the aerial visitors could be. Very soon the rumour spread that the newcomers were British Naval officers from Eastchurch. As the aeroplanes drew swiftly nearer the general outlines of the Short biplanes were recognised, and there was no longer any doubt as to who the visitors were. Arrived over the ground the aviators swept downwards in graceful curves, and finally alighted gently in the centre of the camp, being greeted with such an ovation from the surrounding people as left no doubt in the minds of their foreign *confrères* that something "All British" had happened.

After a short rest, Lieuts. Samson and Longmore again mounted their machines and made several flights, carrying passengers on each occasion, and manoeuvring with a skill and precision which was not surpassed by any, even in that gathering of picked flyers.

The two biplanes were tethered in the aviation camp for the night, and in the morning, after seeing the foreign competitors off, Lieuts. Samson and Longmore flew back to Eastchurch, alighting there at 6 a.m.

Brighton-Shoreham Aerodrome.

MR. BARBER made several trial flights in the early morning of Tuesday last week with a Valkyrie (Type B), taking with him one of his mechanics as passenger, and also Miss Meeze.

Next day Mr. Barber started about 5 a.m. on a Valkyrie with Miss Meeze to fly to Hendon, as mentioned last week.

Messrs. Gordon-England, Pizey and Fleming, who had flown over on Monday on Bristol biplanes, gave exhibition flights, and some pretty glides were witnessed by the visitors, who were already assembled to see the arrival of the aviators flying in the European Circuit.

A few minutes before seven o'clock, Vedrines arrived from Hendon, followed in quick succession by Gibert, Beaumont, &c.; as recorded elsewhere. Those of the visitors who remained at the aerodrome all day hoping to see Valentine arrive from Hendon were rewarded to a certain extent by seeing some more flying by Mr. Gordon-England, who, after some trial flights, set off for the Isle of Wight, followed shortly after by Mr. Pizey, who carried Mr. Fleming as a passenger.

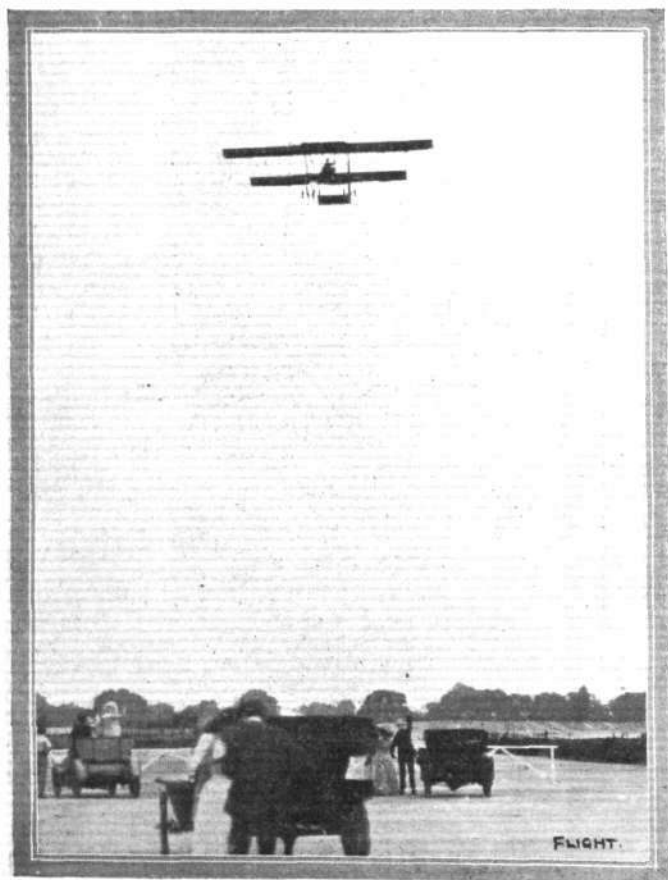
Mr. O. C. Morison on Saturday took Sussex by surprise, and descended here after a brilliant journey from Paris, just under 12 hours from his start from the French capital. It was just before five o'clock on Saturday morning that he set out from Paris. He encountered a dense fog part of the way, and found himself over the sea at Dieppe. He therefore flew back to Calais and descended there, being hospitably entertained by the local people. After a rest he set off for England, without bother as to steamers and craft to convoy him safely across. He reached Dover in quick time, and then, without descending, proceeded westward. He had to descend at Eastbourne, at 4.40 p.m., as he ran short of petrol.

Another aeroplane, the Metzgar-Leno monoplane, arrived on Sunday by road from London. It takes its name from its inventors and constructors, Messrs. Metzgar (two brothers) and Leno. They claim to have made every spar and part of it, including the engine, with the exception of the propeller. It presents a neat appearance, and is to be here some time for trials and experiments.

Brooklands Aerodrome.

LAST Saturday week the Bristol School was well in evidence. In the afternoon Mr. Pixton took up three passengers, one was indulged in a trip in the neighbourhood of Woking and another round Hampton Court.

Mr. Macfie, on Monday last week, was the first out, making straight flights on the Howard Wright biplane; Lieut. Snowden-Smith on a Blondeau Farman carried out a cross-country flight. Taking a passenger to Farnborough, upon his return alone, he treated the spectators to a magnificent *vol plané* from a height of 2,000 ft. He was up again shortly afterwards with a passenger, making rapid flights over the sheds with right and left-hand turns and fine banking. Mr. Hilliard gave a spirited exhibition on a racing Blondeau Farman. Henri Pequet, after many delays and patient tests, was making trial flights on a Blériot with a new Humber vertical engine. The last to come out was Mr. Fisher on the Hanriot monoplane.



Mr. Graham Gilmour on the Bristol biplane, flying over the Brooklands course during the race meeting last Saturday after his return from Windsor.

There was nothing doing next day, most of the aviators attending the flying demonstration at Hendon.

Mr. Valentine, who did so well in the European Circuit, on Wednesday flew over from Hendon, arriving about 6 a.m., on the Deperdussin monoplane. About the same time, Mr. Barber on his Valkyrie biplane, with a lady pupil as passenger, arrived from Shoreham. After taking in a supply of petrol, they resumed their journey to Hendon via St. Albans, as reported last week. About 10 a.m. there was yet another welcome visitor from Hendon in the person of Mr. C. Compton Paterson on a Grahame-White "Baby" biplane. Just before starting back a trial flight was made, a notable feature being the almost volt-face turns with acute banking, which to the spectators looked like a sudden collapse, but which, to their surprise, was a finely executed sharp turn without making the usual wide circuit.

Mr. Pixton arrived from Hendon as passenger with Lieut. Reynolds on the Army Air Battalion Bristol biplane, after a splendid course made by the pilot. The same afternoon Mr. Pixton flew to Woking, and had to land owing to wind and bad "pockets." Later in the evening he returned via Chertsey, and took up several passengers, one round Weybridge and another round Cobham and near Hampton Court, passing over Wisley Hut. He also took up a cinematograph operator for several circuits of the track. One of the Bristol pupils, Mr. De Warter, then took over the machine and did five circuits in excellent style, this being his first time on the machine alone.

Mr. Graham Gilmour flew from here to London, joining the Thames at Weybridge, following the course of the river, arriving at the Houses of Parliament and seeing some Members on the terrace. Mr. Gilmour made a circuit over the wide stretch of water for their benefit, returning to Brooklands by the same route, thus avoiding "flying over towns." This flight took 2½ hours, owing to the winding of the river.

Lieut. Watkins was out on the Howard Wright biplane with passengers on Thursday. Mr. Astley, after an absence from Brooklands, tried straight flights, then circuits, on a Sommer. Mr. Cecil Ashley was practising figures of eight with a view to obtaining his certificate. Mr. Percival was putting in some greatly improved flights and circuits on the Billing biplane, and the Hanriot, with Mr. Fisher as pilot, got through some excellent trips. In the early morning another Bristol pupil, Captain Brooke-Popham, did five circuits in the usual style, this being his second time on the machine alone, and Mr. De Warter flew four circuits at 130 ft. Mr. Pixton, flying in the evening across country, when over Nailham, near Staines, had a little experience. His petrol pipe broke, and the engine stopping he was obliged to *vol plané* down from a height of 500 ft. Whilst descending the machine got up speed and flew along, just above the ground, at about 60 miles per hour. Mr. Pixton managed to avoid running into some trees by "jumping" a hedge and making a sharp turn, ultimately landing heavily in a ploughed field, damaging some struts; obtaining assistance, repairs were effected, and Mr. Pixton "took off" again at 5.30 a.m., arriving safely back at Brooklands soon after.

Soon after Mr. Pixton's return on Friday morning, on a Bristol, Capt. Brooke-Popham took over the machine and flew five circuits at a good height. At 4.20 p.m. Mr. Gilmour, on a Bristol, flew over to Henley, and returning landed at Windsor owing to the engine missing fire.

Mr. Blondeau on Saturday was out early on the school Farman with pupils, Cecil Pashley made flights on the Sommer, Henri Pequet gave a fine display on the Howard Wright, whilst Mr. Macfie and G. M. Cure made straight flights on the same machine. Mr. Pixton was busy carrying passengers. In the morning Mr. Napier, a Bristol pupil, got his certificate in fine style, about 900 ft. up. He flew out over Weybridge. Captain Brooke-Popham executed several figures of eight at a good height. Mr. Pixton made a trip later to Windsor, to meet Mr. Gilmour, carrying with him a passenger. He landed at Old Windsor, near the river, and stayed about one hour, and then returned via Staines. Mr. Graham Gilmour also brought his biplane from Windsor to Brooklands, flying at a height of over 2,000 ft., finishing with a splendidly long-drawn-out *vol plané*. Mr. Blondeau was out with pupils, not finishing until dusk.

Sunday proved to be a fine but windy day. The motor track was closed whilst the engineers were putting up the new footbridge for visitors, &c., from Byfleet. There is talk of a new railway station being erected. This would be a great boon, and facilitate traffic from the north-west districts.

Mr. Gordon-England arrived and gave some interesting details of his flying on the Bristol along the south coast from Shoreham to Shanklin, Isle of Wight. Mr. Graham Gilmour, on his Bristol, gave an exhibition of flying for about five circuits in a high wind, putting in plenty of lever work. Mr. Pixton, who also took a turn, found the wind too high to be quite comfortable, but he was up for

three circuits in two flights each. Early in the morning Lieut. Barrington-Kennett, of the Army Air Battalion, when alighting at Brooklands, had a little mishap. His engine back-firing, set light to the bottom plane, which was burnt away either side of the engine, but was extinguished without further damage.

On Monday there was too much wind for work, and no machines were out all day.

J. Vedrines and Mr. Valentine, whose Deperdussin monoplane is still at Brooklands, visited the aerodrome on Tuesday. Flying was again out of the question all day.

Hewlett and Blondeau School.—Last week four of M. Blondeau's pupils passed for their certificates, flying with full control of their machines. M. Blondeau has still three pupils, who will shortly be ready to take their pilot's certificates. Very gratifying work is being put in at this school, and every day the wind is favourable the pupils are out as early as between 3 and 4 a.m.

Gleanings from the Hangars.—Mr. A. V. Roe has delivered the Avro biplane ordered by Commander Schwann. A new one has been built and will be ready for the use of pupils, &c., by Wednesday. The Roe-Curtiss biplane has gone to Mr. Wakefield, at Windermere.

Messrs. Ding and Sayers are busy on their monoplane which is nearly ready to receive its covering for the wings.

In the same shed is Mr. Macfie's V-shaped biplane, with fuselage and engine à la monoplane.

The French mechanics are busy on the Deperdussin, making ready for the great *Daily Mail* race.

Five new sheds are being added, and temporary tents and hangars are being erected. New fencing will mark off the ground on the west side, and generally every precaution against accidents to visitors is being taken.

Mr. Gustav Hamel is expected here this week.

Messrs. Keith, Prowse and Co. are booking passenger flights more freely now that Coronation festivities are over. Mr. Graham Gilmour had been booked for an exhibition flight at Lord Northcliffe's, but owing to the high wind it was postponed.

The Cody biplane is still here; Mr. S. F. Cody is busy on a new and smaller one.



Mr. Compton Paterson, one of the most promising pilots in the *Daily Mail* Circuit, in the pilot's seat of the Grahame-White "Baby" biplane, upon which he flew from Hendon to Brooklands and back last week.

Filey School (Blackburn Aeroplane Co.)

ON the 7th inst. Mr. Hucks, on the Blackburn "Mercury" monoplane, made a good flight along the coast from Filey to Scarborough, covering the 15 miles in 15½ mins. Mr. Hucks intended to land at Scarborough, but apparently, owing to difficulty in alighting, decided not to do so. He circled over the Grand Hotel at Scarborough, and then returned to Filey, continuing to fly on in the direction of Flamborough before alighting. With regard to the statements which have appeared that the Gnome motor is unsuitable for machines of the Hanriot and Antoinette types, it should be noted that one of these motors fitted to a Blackburn "Mercury" monoplane, which is of the same type, has given successful results from the first, and the above-mentioned flight which was made with it is but one of several which have been put up by Mr. Hucks. While over Scarborough the altitude attained was about 3,000 ft. Mr. Weiss has also been improving considerably in his flying.

Llandudno and North Wales Aerodrome.

THE above aerodrome is being opened at Llandudno to-day (Saturday). It is intended to make only nominal charges to aviators of 5s. per week for use of hangar and ground charge, and only 1s. per week to aviators putting up their own hangars. Flying rights have been obtained over 100 acres of private land.

London Aerodrome, Collindale Avenue, Hendon.

Grahame-White School.—A good flight by Compton Paterson quite late on Tuesday evening was unfortunately omitted from last week's record. With Mr. Guy Lewin and his two sons as passengers, he made a long tour over the neighbourhood on the military Farman machine, passing over the Brent reservoir and circling Mr. Lewin's residence. They returned to the aerodrome at a height of 1,500 ft., and glided to earth, the propeller coming to rest before the machine was within 600 ft. of *terra firma*. Before retiring from the aerodrome for the day, Paterson took Mrs. Guy Livingstone and Mr. Gates for a similar trip on the military machine.

Wednesday, the 5th, was the day fixed for the departure of the competitors in the "Circuit of Europe." Although there was much misunderstanding as to what time the competitors were really going to start there was a crowd of several thousand strong on the ground as early as 5.30 a.m. Half an hour later the first aviator was despatched. It was "Beaumont." He mounted to about a hundred feet and veered off in a south-easterly direction. Garros followed, making a most impressive start, as he turned sharply to the right as soon as his machine had left the ground. One by one they got away with great regularity until the last was a mere speck on the horizon.

At about 10.15 Compton Paterson mounted the Grahame-White "Baby," and rising to well over 1,000 feet, cut across country to Brooklands in order to superintend the dismantling and removal of a Sommer biplane.

Although there was apparently a dead calm, as shown by the anemometer, the air was in a very peculiar condition, probably on

account of the intense heat. On one occasion a miniature whirlwind, carrying with it small pieces of paper, at a height of about 80 ft., crossed the ground.

Hubert did a circuit at 11 o'clock, but not caring a great deal for the mysterious state of affairs came down. Driver went up later on the school Farman, but descended after two circuits for the same reason.

Conditions improved a great deal during the afternoon, and Driver made several flights of 20 mins. duration, rising to an altitude of 500 ft. His first *vol plané* was remarkably steady and precise and the landing was perfect. Throughout the evening passenger flights were in very great demand, Hubert flying with no less than fifteen, amongst whom were two lady friends that Sir Thomas Lipton had brought along to visit the Grahame-White works and school. At about 7.30, the characteristic note of a Gnome engine was heard in the distance. It proved to be Paterson, on the "Baby," flying back from Brooklands at a great height. Greswell immediately set out on the Gnome-Blériot to meet him. Paterson maintained an altitude of 3,000 ft. until he was right over the aerodrome, then he switched off and glided down *entire bouchon*. His time between the two aerodromes was 21 mins., his speed being approximately 60 miles an hour.

On Thursday, the 6th, flying did not commence until the afternoon, when Driver went out practising on the school machine. Paterson was at the same time busy testing various improvements to the "Baby." He mounted repeatedly to 1,500 ft. and glided to earth. On one occasion he flew out of sight in the direction of Ealing, returning after a quarter of an hour's absence. During the evening Driver practised right-hand turns.

Early on Friday morning Driver did one half of the tests for his brevet, completing a series of five figures of eight. He had to abandon the rest of the tests on account of his engine becoming overheated.

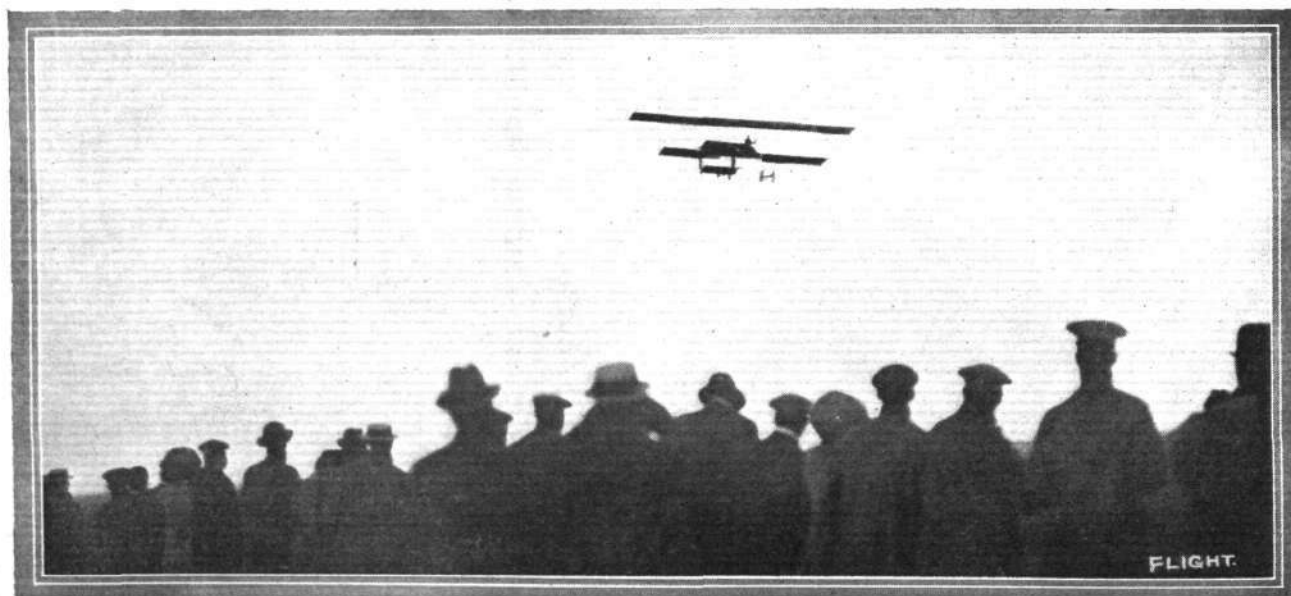
Later on in the evening Compton Paterson flew the "Baby" over to the polo grounds of Ranelagh, where Grahame-White was due to give an exhibition on the following day.

The wind was a trifle unsettled on Saturday morning, but this did not prevent Clement Greswell from making an appearance on the Gnome-Blériot. He flew for 15 mins. in order to test a new propeller.

After lunch Paterson busied himself with passengers on the military machine, and later with the pupil Driver in the passenger's seat rose to a considerable height and flew off to Ranelagh. Arriving there at quite 2,000 ft., Paterson cut off the engine and *vol plané* down on to the comparatively small landing place in a perfect manner.

During the afternoon Grahame-White made many flights on his "Baby," handling the machine with his usual skill and dash. He also gave passenger flights on the military Farman. Meanwhile back at the aerodrome Greswell was giving exhibitions on the Blériot-Gnome, and Hubert was flying the school Farman.

From Saturday evening up to the time of writing there has been no flying on account of the adverse conditions.



Graham Gilmour, on a Bristol biplane, gives a few exhibition flights at Eastchurch whilst waiting for the Gordon-Bennett Race to commence.

"Flight" Copyright.

Valkyrie School.—On Tuesday last week, Mr. Barber, at Shoreham, at 6 a.m., made the first attempt to carry passengers on the Type B racing machine. He was successful in taking Miss Meeze up to a height of 1,000 ft., afterwards also carrying Mr. Barrons to 500 ft. In the latter case the useful weight lifted amounted to 28 stone. In the evening Mr. Barber fulfilled the contract with the General Electric Co., by flying from Shoreham to Hove Marine Park with a case of Osram lamps as reported in our last issue. He accomplished the journey at a height of 1,500 ft., and everything passed off satisfactorily. The landing place was not more than six acres in extent and surrounded by trees, whilst a wind from 15–20 miles an hour was blowing.

Type B racing machine was out on Wednesday, and passenger flights were given to Messrs. Clutterbuck, Wells, Perry, and Miss Prentice, all of whom did well in managing the elevator. Miss Prentice, who is only sixteen years of age, "piloted" the machine round almost a complete circuit.

A lot of flying was got through in the evening of Thursday on the Type B military Valkyrie. Two solo flights, each about 20 mins. duration, at heights ranging well over 1,000 ft., were put up, although a tricky wind registering 17 miles an hour was blowing. During the evening the following passengers were given flights:—Messrs. Wells, Perry, Prentice, Chas. C. Turner, Lan Davies, and Miss Meeze. This machine is now fitted with auxiliary levers for pupil passenger work, which have proved to be of the greatest service in assisting tuition.

The No. 5 Type B monoplane, which is now fitted with dual controls for pupils, was in work next day, when lessons were given to Messrs. Wells, Perry, and Miss Meeze, in addition to several passenger flights, including one to Mr. Greswell, the well-known aviator. By way of a finish, Mr. Barber indulged in two solo flights, attaining in each case heights over 1,000 ft.

Saturday the school machine was out, and Mr. Barber, after accomplishing a figure of eight at a height of 500 ft., the machine was taken in hand by Mr. Perry, who put in a lot of good practice, accomplishing circular flights in good style. In the evening the No. 5 Type B machine carried numerous passengers, among them being Miss Meeze and Mr. Bellingham, the former being taken to well over the height of 1,000 ft., and the latter to a height of 500 ft. or 600 ft.

Salisbury Plain.

THE weather during the past week has been ideal for flying, and so a great deal of very useful work has been put in at the British and Colonial Aeroplane Co.'s school at Salisbury Plain. M. Jullerot, who has been in charge while Messrs. Pizey and Fleming have been touring the South of England on their biplane, was out early on the morning of Wednesday week giving instructions to Mr. Watt, a new Australian pupil who had his first lesson over night, and Mr. Lawrence, who has been making splendid progress. M. Tetard, who is now back at the school, took the latter pupil for a flight round the Plains, while Lieut. Cammell was also out on his Blériot putting in some scouting practice. In the evening the pupils, Lawrence and Watt, were given long lessons and were allowed to take full control of the levers. M. Jullerot was up several times doing right and left hand turns and banking in fine style, while M. Tetard, after flying across country some time at a great height stopped his engine at 1,800 ft. and came down by a beautiful *vol plané*. Lieut. Cammell was again out on the Blériot, this time indulging in high flying, a performance which was followed by M. Jullerot on the Bristol. The sun rises early on these fine July mornings but rarely does it find the Salisbury Plain aviators in bed, three o'clock having been the usual time for starting operations during the past week or so.

On Thursday morning, although there was a good deal of mist the Bristol instructors and their pupils were at work early, and Mr. Watt and Mr. Lawrence each made two solo straight flights for the first time. M. Jullerot, although the fog had thickened, went up on a Bristol machine and made a cross-country flight over Amesbury and Bulford, experiencing no difficulty in finding his way. M. Tetard then replaced his confrère and quickly climbing to a height of 1,400 ft., came down eventually by a fine gliding flight. After the mist cleared off, Lieut. Cammell was out on his Blériot, flying across country at a good height, while Lieut. Conner was also practising on the E.N.V. engined Howard Wright. A new racing biplane arrived during the day, and this will shortly be undergoing tests. In the evening the Bristol pupils were again busy while their instructors also made good exhibition flights, and Lieut. Cammell and Lieut. Conner were likewise out again.

On Friday morning M. Jullerot, after giving lessons to the pupils, was flying at a height of 1,000 ft., coming down by spiral *vol plané* in the Tabuteau style. At 7 o'clock the Bristol aeroplane on which Messrs. Pizey and Fleming have been touring the South of England arrived from the Isle of Wight, Mr.

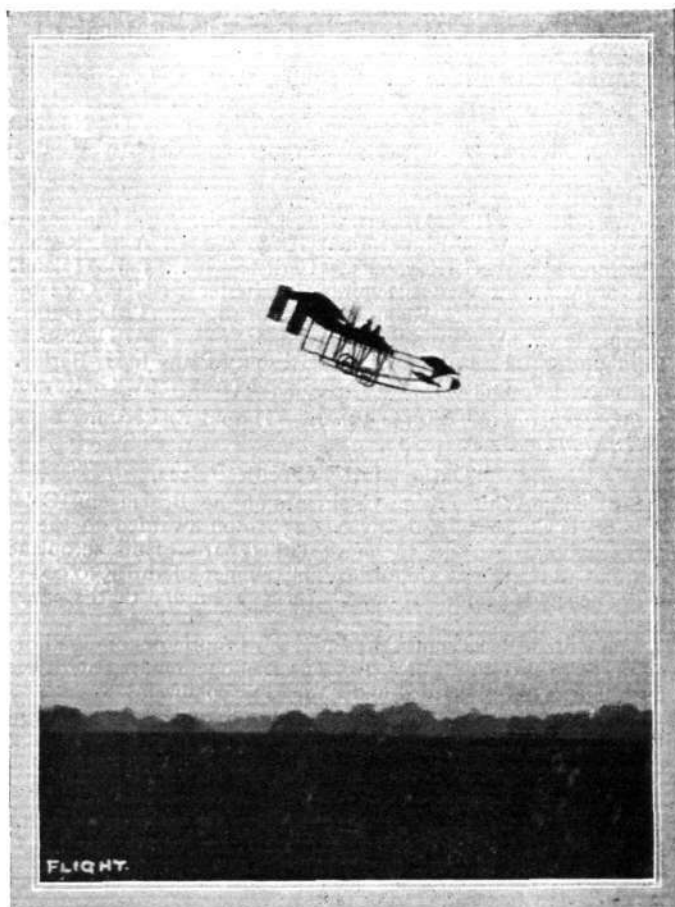
Fleming being at the tiller. During the week they have been away they have made calls at Rochester, Brooklands, Shoreham, and the Isle of Wight. During the day the staff was busy in the hangars erecting new machines, and in the evening Mr. Fleming had a slight smash owing to some sheep running under his machine. Fortunately, the damage done was not very serious, and the pilot was unhurt. Messrs. Pizey, Jullerot and Tetard each made good flights, as also did some of the Air Battalion officers, Lieut. Reynolds being in charge of the Howard Wright biplane.

On Saturday morning M. Jullerot was flying for half an hour on the Renault-engined Bristol machine built for the Air Battalion, after which it was handed over to the military authorities. Sir George White, Mr. Stanley White, Mr. Thomas, and Mr. White Smith were present to see the tests made.

On Sunday the work was confined to the hangars, and on Monday the staff were busy erecting another machine for the Air Battalion, and also the one which Mr. Pizey is flying in the *Daily Mail* competition. Lieut. Cammell, who has entered his Blériot for this event, is putting in a great amount of practice at every available opportunity. Mr. Pizey brought out one of the machines which has been in dock for repairs, and after a short test it made a very good showing at the hands of Mr. H. Busteed. Of the Air Battalion, Lieut. Cammell was out as usual on his Blériot and Lieut. Reynolds took the Renault-Bristol for a flight with a passenger, the height attained being 800 ft. On Tuesday the Bristol staff were engaged in the construction of Mr. Pizey's machine, and also the machine which Mr. Gordon-England will fly in the big race.

Southport Aerodrome.

MR. GAUNT last week put in some very fine trips upon the "Baby" biplane he has made, at times flying 100 feet high and descending neatly with the engine stopped. On Friday evening he was flying quite half an hour, but on Saturday was in difficulties trying to rise in a side wind and damaged the propeller, wheels, and the lower planes, although the chassis stood up to the shock. Repairs took until the evening of the 11th, and then on taking out the machine again Mr. Gaunt made several trips to the Pier and finished up with a flight to Crossens.



A fine *vol plané* by Mr. H. Barber on his Valkyrie monoplane last week upon the occasion of his flight from Shoreham to Hendon, accompanied by Miss Edith Meeze as passenger.

The Royal Aero Club of the United Kingdom

"Daily Mail" Second £10,000 Prize.

THE race for the *Daily Mail* Second £10,000 Prize will start from Brooklands on Saturday, July 22nd, at 3 p.m.

Admission of Members to Brooklands.—Members of the Club will be admitted free on production of their membership cards. Members will also have the privilege of taking in their motors free. These facilities apply to Members only, and any friends accompanying them must pay for admission. These facilities also apply on the arrival home of the competitors at Brooklands.

Admission of Members to Hendon.—The first Control after leaving Brooklands is at Hendon, and the competitors are expected to arrive there from 3.15 p.m. onwards.

Sunday at Hendon.—The competitors will remain at Hendon on Sunday, July 23rd, 1911.

Start from Hendon.—The competitors will start from Hendon at 4 o'clock on Monday morning, July 24th.

Members will be admitted free to Hendon on the above three days on production of their membership cards. Members will also have the privilege of taking in their motors free. These facilities apply to members only, and any friends accompanying them must pay for admission.

Other Controls.—Harrogate, Newcastle, Edinburgh, Stirling, Paisley, Carlisle, Manchester, Bristol, Exeter, Salisbury, and Shoreham.

Arrangements have been made for members to be admitted free to any of these Controls on production of their membership cards.

The following officials have been appointed:—

Stewards' Committee (Commissaires Sportives).—The Executive Committee of the Royal Aero Club.

Stewards of the Meeting (Commissaires Sportifs).—Prof. Archibald Barr, D.Sc., Ernest C. Bucknall, Col. H. C. L. Holden, C.B., R.A., F.R.S., Prof. A. K. Huntington, Major F. Lindsay Lloyd, James R. Nisbet, and Mervyn O'Gorman.

Marking Committee.—G. H. Baillie, Capt. A. D. Carden, R.E., R. L. Charteris, Hon. Maurice Egerton, Col. H. C. L. Holden, C.B., R.A., F.R.S., Jack Humphreys, Anthony G. New, Alec Ogilvie, Mervyn O'Gorman, W. Prance, and Capt. R. K. Bagnall Wilde.

Official Timekeepers.—

Controls.	Timekeepers.	Controls.	Timekeepers.
Brooklands...	A. V. Ebbelwhite.	Glasgow ...	A. G. Rennie.
Hendon ...	A. G. Reynolds.	Carlisle ...	J. B. Hyland.
Harrogate ...	A. V. Ebbelwhite,	Manchester ...	C. P. Glazebrook.
	J. E. Rhodes.	Bristol ...	T. D. Dutton.
Newcastle ...	A. Fattorini.	Exeter ...	A. Deacon.
Edinburgh ...	F. T. Bidlake.	Salisbury Plain	J. H. Burley.
Stirling ...	James M. Inglis.	Shoreham ...	A. G. Reynolds.

Secretary and Clerk of the Course.—Harold E. Perrin.

Assistant.—G. F. Joseph.

"Daily Mail" Circuit Prizes.

Sir George White, Bart., Chairman of the British and Colonial Aeroplane Co., has kindly given £250 to be awarded to the competitor who arrives with the most marked parts of his aeroplane in position at the Final Control. The winner of the £10,000 prize will be excluded from this prize. In the event of a tie the prize will be divided.

The British Petroleum Co., Ltd., the proprietors of Shell motor spirit, have also kindly presented a prize of one hundred and twenty-five guineas to be awarded under the same conditions.

The Brighton Hotels Association have kindly intimated to the Royal Aero Club that they will present a one hundred guinea gold cup to the first English competitor to arrive at the Brighton Control.

Balloon Race at Hurlingham.

The long-distance balloon race for the Hedges Butler Challenge



A Guide to Bristol.

IN view of the prominent place which is being taken by Bristol as an aviation centre, the attention of our readers may well be drawn to a splendid little guide to the locality compiled by Mr. Challiner and published by the Bristol Tramways and Carriage Co., Ltd., some of those controlling this undertaking, as most of our readers know, being closely allied with the British and Colonial

Cup will take place to-day (Saturday) at the Hurlingham Club Fulham, S.W., at 3 o'clock.

The following are the competitors in the order of starting:—

1. Consul Stollwerck ... "Hannover," 50,000 c.f.
2. Capt. The Hon. Claud Brabazon ... "Zeta," 28,000 c.f.
3. Mrs. John Dunville ... "Banshee II," 80,000 c.f.
4. Hon. Mrs. Assheton Harbord ... "North Star," 80,000 c.f.
5. Capt. E. M. Maitland ... "Pompadour," 50,000 c.f.
6. A. Preston Hohler ... "Dunlop I," 50,000 c.f.
7. Gilbert Dennison ... "Alpha," 50,000 c.f.
8. A. Mortimer Singer ... "Planet," 80,000 c.f.

Members of the Royal Aero Club will be admitted free to the Hurlingham Club on presentation of their Royal Aero Club membership cards.

The Manville £500 Prize.

The next date for this competition is Saturday, July 15th, 1911. The following flights have so far been recorded:—

May 6. C. H. Pixton. 31 mins. | June 5. S. F. Cody. 80 mins.
May 20. C. H. Pixton. 49 " | July 24. C. H. Pixton. 31 "

Gustav Hamel.

Members will be pleased to hear that Mr. Hamel is now quite recovered, and has been flying again this week. He is a certain starter in the *Daily Mail* Circuit.

Presentation to Club.

Mr. Patrick Y. Alexander has kindly presented a globe to the Club.

Gordon-Bennett Aviation Race.

The Committee has sent a donation to the St. John Ambulance Brigade (Sheppey Division) in appreciation of the excellent services which they rendered on the occasion of the Gordon-Bennett Race at Eastchurch.

Donations have also been sent to the Eastchurch Boy Scouts and two sections of the Sheerness Boy Scouts, in recognition of their useful work.

The Committee wish to record their thanks to the neighbouring farmers for the assistance rendered to the Club, and especially to Mr. A. Boorman, of Hook Farm, who collected a charge from people coming through his farm, and handed it over to the Club on the same evening.

Aerial Navigation Act, 1911.

The Secretary of State has transmitted to the Club the following Order under the Aerial Navigation Act, 1911:—

"In pursuance of the power conferred on me by the Aerial Navigation Act, 1911, I hereby, for the purpose of protecting the public from danger, make the following Order:—

"I prohibit the navigation of aircraft of every description over the City of Edinburgh or over any place within four miles of the said city on the 17th, 18th, 19th, 20th and 21st July, 1911.

(Signed) "WINSTON S. CHURCHILL,

"One of His Majesty's Principal Secretaries of State.

"Home Office, 7th July, 1911."

"Any person navigating an aircraft in contravention of the foregoing Order is liable on conviction to imprisonment for six months, or to a fine of £200, or to both such imprisonment and fine."

Late Hon. C. S. Rolls.

Wednesday, July 12th, was the anniversary of the lamentable accident to the late Hon. C. S. Rolls, and the following cablegram was received from the Aero Club of America: "In memoriam, Charlie Rolls."

HAROLD E. PERRIN,

166, Piccadilly.

Secretary.

Aeroplane Co., the makers of the Bristol aeroplane. Not only does the little book give full particulars and illustrations of all that is worth seeing in and around Bristol, but at the end is given details of a series of delightful little trips which can be made in the neighbourhood. The book is an invaluable companion to anyone visiting Bristol, and the price is extremely reasonable, being only threepence, while a copy will be sent post free for fivepence, on application to the manager's office, Tramway Centre, Bristol.

PROGRESS OF FLIGHT ABOUT THE COUNTRY.

NOTE.—Addresses, temporary or permanent, follow in each case the names of the clubs, where communications of our readers can be addressed direct to the Secretary. We would ask Club Secretaries in future to see that the notes regarding their Clubs reach the Editor of *FLIGHT*, 44, St. Martin's Lane, London, W.C., by first post Tuesday at latest.

Coventry Aeroplane Building Society (22, KINGSTON ROAD).

A "FLIGHT Golf" Competition was held on the 1st inst., and although the breeze was very high and gusty some remarkable flights were made against the wind. The first prize fell to a monoplane entered by Mr. M. Ralph. Mr. L. Ryley took the second prize. The half-yearly general meeting of the club will be held in the Mayor's Parlour, Coffee Tavern, Broadgate, on Wednesday, July 19th, at 8 p.m., and members and their friends are asked to attend. Designs for the club glider which it is proposed to build must be sent in by the first week in August. A syllabus of lectures and debates for the autumn and winter months is in course of arrangement.

Kite and Model Aeroplane Assoc. (27, VICTORY RD., WIMBLEDON)

THIS association, on the 5th inst., held their competition for the Wakefield Gold Challenge Cup, for models rising from the ground under their own power. Points were awarded for shortest run before rising, duration of flight, and stability in flight. There was a good field, and it was a very close competition, the winner being E. W. Twining (Twining monoplane), 86 points out of a possible 100. His machine rose in 3 ft. 6 ins., scored 36 secs. duration, and was awarded third highest points for stability; V. E. Johnson, second, with 84 points; G. P. Bragg Smith, 80 points, third; F. Rogers, 77 points, fourth; G. Rowlands, 74 points, fifth; C. B. Ridley, 72 points, sixth.

The shortest run before rising from ground was made by F. Rogers, being only 2 ft. 11 ins. The best duration was by G. Rowlands of 48 secs.

The judges were: Colonel Trollope, Messrs. T. O'Brien Hubbard, J. H. Ledebor, F. T. Pringuer, and the hon. sec.

Alderman Sir Charles Wakefield, D.L., J.P., who was accompanied by Lady Wakefield, presented the prizes.

He stated that the association had done so much to encourage model aeroplanes that when he was asked to give a prize he decided with Mr. Akehurst that rising offground would be the most scientific competition for which he could give it, and was so pleased to see that it had been such a close contest, and he wished the association and its members every success.

After the usual vote of thanks, &c., the competitors gave hearty cheers for Sir Charles and Lady Wakefield for their grand trophy.

Liverpool Model Aero Club (39, BROOK ROAD, BOOTLE).

A SUCCESSFUL meeting of this club was held at the above address on Friday evening last week. The ensuing discussion of rules and prospects was very keen, so that with such enthusiasm to keep the club alive, it should have a great future.

A private field, situated centrally, is being rented, so that members will be able to experiment away from the public gaze.

The subscription is 1s. per month, with at present no entrance fee. Owing to the great love evinced by members' models for embracing walls and trees, only a few are ready for flying, but a meeting has been arranged for to-day (Saturday), given decent weather.

We should be pleased to receive catalogues of model accessories as soon as possible.

Prospective members are asked to kindly communicate with the secretary, Alex. Grindrod Pugh.

Manchester Ae.C. (Model Section) (52, MANSFIELD CHAMBERS).

MOST of the members of the Model Section attended a special general meeting on the 20th ult. at the Manchester Aerodrome, and elected officers for the coming season. After this there was a flying competition, and some very good performances were put up. One model, made by Mr. A. Wood, on several occasions flew

between two and three hundred yards, on one occasion clearing over some neighbouring works outside the aerodrome.

Parkside Aero Club (2, EDBROOKE ROAD, PADDINGTON).

THE competitors enjoyed a splendid day's flying on Saturday last at Parkside, Sudbury, where the club held a Duration Competition, judged by Messrs. T. W. K. Clarke, E. W. Twining and T. O'Brien Hubbard. The results were:—1st prize, M. H. Canning, monoplane, 53'4 secs., silver challenge cup and medal; 2nd, Mr. Davies, Twining mono., 52 secs., silver medal; 3rd, Claude Owen, Rowlands mono., 51'2 secs., silver medal; 4th, D. C. Holmes, Holmes mono., 49'4 secs. The secretary would like to hear from readers willing to join the club. Members have use of club glider and large ground.

Scottish Ae.S. Model Aero Club (144, BERKELEY ST., GLASGOW).

SOME very good flying was seen at a demonstration with models which was given by the club at Rutherglen on Saturday last. Several members obtained duration flights of from 35 to 40 seconds, and distances of 250 to 300 yards were obtained.

Sheffield Model Aero Club (35, PENRHYN ROAD).

At a general meeting of the above club held at Staniland's Restaurant, West Street, it was decided to hold the next model flying competition on Monday, August 7th. The following is the suggested programme:—1. For models rising off the ground under their own power, prize 2s. 6d., if not less than three starters. 2. Longest distance flown: bronze medal. 3. Duration: bronze medal. 4. Height: silver medal. The entrance fee for each event: 6d. for non-members of the club, and 2d. each for club members.

No competitor will be allowed more than two models in each event. Each competitor will be allowed three tries in each event. All entries to be made to the secretary, C. F. W. Cudworth, 35, Penrhyn Road, by July 26th. The club will be pleased to receive any books, &c., on aviation for use of members.

SCHOOL AERO CLUB.

Arundel House School Ae.C. (15, ARLINGTON ROAD, SURBITON).

THE prize recently offered for the best scale drawing of a model has just been awarded to Ralph Griffiths.

"Get off the ground" machines are at present extremely popular, the Mann monoplane, in particular, rising in a very few feet.

On Saturday, the 8th inst., the third annual model aeroplane contest took place on Littleworth Common, Esher, in the presence of a large number of interested spectators. Proceedings lasted from 3 p.m. to 8 p.m., and the judge, Mr. Wilfrid L. Evershed, is to be congratulated on the way in which he performed his arduous and trying duties. Fifteen competitors took part, and tests were imposed for (a) speed, (b) duration, (c) stability, (d) steering, and (e) distance. The first prize in the senior branch was awarded to C. Griffiths (Ridleyplane), and the second to R. F. Mann (Mann monoplane), the special prize for duration (53 secs.) also going to C. Griffiths (Ridleyplane).

In the junior branch the first prize fell to Owen Wilson-Jones (Ridleyplane) and the second to N. Whitechurch (Mann monoplane), the special prize for duration (45 secs.) being also won by N. Whitechurch (Mann monoplane). Owing to a curious condition of the atmosphere, combined with the influence of the heat on the rubber of the motors, the average of the flights was decidedly poor, the longest distance covered being only just over 700 ft. The Esher Boy Scouts were in attendance, and were able to work up a big balance of "good turns" by recovering machines for the competitors.

Mr. Graham Gilmour's Thames Flight.

AFTER all, Mr. Graham Gilmour never encircled either the dome of St. Paul's nor the Houses of Parliament during his flight up the Thames last week. The report which appeared in the daily press was rather the result of some imaginative witnesses of Mr. Gilmour's little river trip on a Bristol biplane, when he followed the course of the Thames as far as St. Paul's. No doubt in making the rather sensational announcement of St. Paul's being encircled, due consideration was not given to the height at which he was flying,

and in reporting the alleged feat the wish for a rousing item of news was evidently father to the thought. As a fact, Mr. Gilmour it appears never got beyond the boundaries of the banks of the Thames on either side. In this connection we are extremely glad to have seen the very strong disclaimer at once put forward by Mr. Gilmour in the newspapers in which the report originated, as this should dispose at once of any doubt as to the possibility of Mr. Graham Gilmour's splendid aviation abilities not being available in the coming *Daily Mail* circuit.

BRITISH NOTES OF THE WEEK.

The Anniversary of a Tragedy.

TIME passes very rapidly and it hardly seems that twelve months have gone by since the Hon. C. S. Rolls was snatched away in the prime of life by the accident at Bournemouth. The great strides in flying since then have possibly made the time seem even farther off. We think, however, few of those who are interested in aviation will have overlooked the fact that Wednesday last was the anniversary of that tragic occurrence which robbed aviation of one of its finest exponents. Incidentally it may be mentioned that the very fine life-like bronze statuette which has been executed by Mrs. Scott is now on view at the galleries of the Fine Art Society, 148, Bond Street, W.

Improvements at Brooklands.

THE aviation ground at Brooklands having become quite an important part of this drome, the question of more convenient access has been under consideration, with the result that a footbridge has been constructed over the west end of the track, thus enabling the many aviators who reside in the neighbourhood of Byfleet to reach the flying ground without going right round to the other side of the track. The work has been carried on actively during last week, and to-morrow (Sunday) the track will be closed to motorists in order that the finishing touches may be given to the bridge. Members will, however, be able to travel round the track to and from the flying ground.

The Valkyries and the Navy.

As we announced last week, the suggestion of Mr. Barber in presenting the four Valkyries to the Government, that two of the monoplanes should be allotted to the Navy, was at once accepted by the authorities. As a very important object in experimenting with these machines is necessarily to make them as efficient as possible in respect to the alighting on water and rising from it, why not place these for work amongst naval officers at Barrow? There they already have to hand appliances connected with the naval airship which more or less would be useful with the aeroplanes, and, most important of all, they have a splendid sheet of water upon which every manner of test and experiment could be carried out, without much fear of interruption or upset from severe weather. The practical experience of the naval men at Barrow in connection with floats should serve them in good stead, and possibly the suggestion now put forward may be worthy of consideration.

The Naval Airship.

QUESTIONED in the House of Commons the other day as to the state of the Naval airship Mr. McKenna said that it was now completed, and that trials both inside and outside the shed had been carried out. It had been found desirable to stiffen some of the transverse stays and this work was nearly completed. The gas bags will be again inflated and the outer covers replaced, and trials in the air carried out almost immediately.

PARIS TO SHOREHAM BY AEROPLANE.

STARTING from Issy at half-past four last Saturday morning, on his Morane monoplane, Mr. O. C. Morison intended to fly across to Dover without a stop, but when near Calais was not quite certain of his bearings, and came down to find himself at Les Barraques. He started off on the cross-Channel trip at ten minutes past two,

Flight in the Isle of Wight.

No little excitement was caused in the Isle of Wight on Tuesday when it became known that Messrs. Pizey and Fleming intended to fly from Shoreham to Ventnor on the following day, and long before 6 p.m., when it was anticipated they would arrive, a large crowd made their way to the "Station," and about ten minutes past eight the first Bristol arrived with Mr. Fleming in charge, and Mr. Collins Pizey in the passenger seat. The aeroplane was at once cleared off the ground in order to allow as much room as possible for Mr. Gordon-England, who arrived half an hour later with the luggage on the second Bristol. In flying across the Solent, Messrs. Fleming and Pizey were at a height of 2,700 ft. On Thursday a number of exhibition flights were made, some of them with passengers, and one of the machines was slightly damaged through coming down on rough ground. Messrs. Fleming and Pizey made an early start for home soon after five on Friday morning, and flying by way of Shanklin, Sandown, Ryde, and Southampton, reached Salisbury after an hour and a half's trip.

A Flying Meeting for Colwyn Bay.

THEIR enthusiasm having been aroused by the visit of various aviators, including Mr. Loraine and Mr. King, the inhabitants of Colwyn Bay have arranged a meeting which starts to-day and continues until the 29th inst. Among those who are to make flights are Mr. King and Mr. Hunt.

Southport Not Discouraged.

So far from having its ardour damped by the wretched weather which spoils its Coronation Flying Meeting, Southport has arranged with Mr. Grahame-White to give a series of flying exhibitions during the forthcoming week-ends up to August Bank Holiday. It is hoped that these arrangements, which have been made by the generosity of Mr. Leonard Williamson, will enable the guarantors of the last engagement to be relieved of their responsibilities.

The Vortex Principle of Flight.

IN our correspondence columns, Mr. Bertram C. Cooper contributes this week a very valuable series of references to scientific investigations already available upon this important subject. These should be carefully studied and followed up by all those who are engrossed with the principles involved. It should save an enormous expenditure of time and work in forming theories which have already been tested and found wanting.

Model Clubs for Margate, Westgate and Westcliff.

AN endeavour is being made to form a Model Aero Club in Margate and Westgate-on-Sea, and in order that a meeting may be called to consider the matter all who are interested in the proposal are asked to communicate with Mr. J. G. Navarro, Hall-by-the-Sea, Margate. Youths interested in models at Westcliff-on-Sea are asked to communicate with Mr. M. Jacobs, St. Austell, Ceylon Road, Westcliff-on-Sea.

A Prize for British Military Flyers.

WITH the approval of the Army Council, a challenge trophy has been offered by the Manor House Club, Bredons Norton, Worcestershire, for the military officer on the active list who, during July, August and September, creates the best time record in flying from either Brooklands, Hendon, Salisbury or Aldershot to the clubhouse. One stop will be permissible *en route*.

A British Deperdussin School.

ARRANGEMENTS are being made by the British Deperdussin Aeroplane Syndicate to open a school at Brooklands in order that British owners of Deperdussin machines may have every facility for learning to fly. This machine, which did well in the Paris to Rome race, and was also well to the front in the European Circuit, is finding a good deal of favour among aviators, some of whom have called it the aerial yacht on account of its fine lines and easy control. Two of the machines have been entered for the *Daily Mail* circuit, one to be piloted by Mr. J. Valentine and the other by Mr. J. C. Porte, who obtained his brevet at Betheny last week.

without making any special arrangements for mark boats, &c., and half-an-hour later was over Dover Castle. Without landing, he turned westward on his way to Shoreham, and reaching Eastbourne made a stop there in order to take on some more petrol. Later he made a fresh start and arrived at Shoreham safely.

Liverpool to Manchester and Back.

A VERY fine flight was made on Friday evening of last week between Liverpool and Manchester by Mr. H. G. Melly on his two-seater Blériot. Accompanied by his pupil, Mr. Jones, he left the flying ground at Waterloo, and flying *via* Aintree, Prescott, Rainhill, Great Sankey, and along the Ship Canal, reached the Trafford Park Golf Links, where he landed safely, having made the trip of 40 miles in 40 mins. 12 secs. The field in which Mr. Melly landed is the site of the proposed aerodrome at Manchester, and he was met there by Mr. N. V. Roe. After lunching at Trafford Hall, Mr. Melly and his passenger flew back to Waterloo in 63 mins. 40 secs., the slower speed being accounted for by the stiff headwind, while the distance flown on the way back was about five miles further. The greatest height attained was 2,300 ft. On the previous evening, Mr. Melly had taken his niece, Miss Gladys Melly, for a cross-country trip, passing over Ince Woods and making a detour round the town. Afterwards he took his cousin, Mr. W. R. Melly, for a short flight across the Crosby Channel and back.

THE "DAILY MAIL" £10,000 PRIZE.

THE success which has attended the European Circuit competition, and the close proximity of the start of the race round England for the second prize of £10,000 offered by the proprietors of the *Daily Mail*, is serving to arouse a good deal of interest in aviation matters all over this "tight little island." Among the official notices of the Royal Aero Club of the United Kingdom, on page 612, will be found several interesting details regarding the arrangements for the first stages of the *Daily Mail* competition. Great Britain is well represented among the list of thirty pilots who are practically certain to take their place on the starting line, there being no less than seventeen hailing from the Home Country, while of the others, eight are of French nationality, one American, one Austrian, one Swiss, one Dutch, and one Argentine, the last-mentioned being Mr. E. C. Gordon-England, who flies a Bristol machine. The Bristol machines will be well represented in the race by five biplanes and two monoplanes. The monoplane will be of new design, while the biplane will be similar to that flown by Tabuteau in the European Circuit. In this type, the outrigger framework, carrying the elevator, is practically a continuation of the main skids, while another feature is the monoplane type of tail with balanced rudder planes beneath, and 50-h.p. Gnome motors will be fitted to all machines.

The race will start from Brooklands on Saturday afternoon next, the 22nd, when the competitors will fly the short stage of 20 miles to Hendon. There they will spend Sunday and re-start on Monday

morning for Edinburgh, with controls at Harrogate and Newcastle. The third section will end at Bristol, the official controls being at Stirling, Glasgow, Manchester. The fourth stage finishes at Brighton, with controls on the way at Exeter and Salisbury Plain, while the last stage will be a short one of 40 miles, from Brighton to Brooklands.

In connection with the race, Messrs. Joseph C. Mount and Co., who have had considerable experience in the transport and packing of aeroplanes, are making special arrangements for this service in connection with the race. Not only so, but they have also arranged for a special train to follow the aviators all round Great Britain, principally of course to carry the necessary supply of spare parts, &c., in order that everything may be available in the event of aeroplanes breaking down *en route*, and also for the purpose of picking up and returning aeroplanes which have fallen by the way.

Both open and closed trucks will go to make up the train according to the taste of each aviator, the closed truck having an added advantage, as no doubt the mechanic could make use of it as a temporary workshop. It is also proposed to send a motor car with the train, so that mechanics and pressmen can get into touch with the aviators at any point at which they may alight. Passenger accommodation, both first and third class, has also been arranged on the train, in order that representatives of firms, mechanics, &c., may be able to keep together.

FOREIGN AVIATION NEWS.

The Height Record Beaten on a Henry Farman.

FOR some considerable time no assaults have been made on the height record standing to the credit of Legagneux, but on Saturday, Loridan on one of the new racing Henry Farman biplanes succeeded in climbing during a flight of 1 hr. 23 mins. to an altitude, according to his barograph, of 3,280 metres (10,758 ft.). Stopping the motor, he came down by a *vol plané* in twelve minutes.

New Passenger Record.

AT Chartres, on Sunday last, Level on a Savary biplane, fitted with a 70-h.p. Labor motor, succeeded in bettering the passenger speed and distance record over a closed circuit. Previously, this distance record had stood to the credit of Nieuport with 150 kiloms., but Level succeeded in carrying his passenger, M. Junquet, for 200 kiloms., the time being 2h. 38m. 26 $\frac{2}{5}$ s., a new passenger speed record. The record for duration with passenger is held by Amerigo with 3 hrs. 19 mins.

French Military Manœuvres.

CONTINUING the series of reconnoitring flights which have been made during the past week or so, Capt. Eteve and Lieut. Cheutin on their Maurice Farman machines were despatched on the 4th inst. from Versailles, the former to make a reconnaissance to the east of Paris, and the latter to scout along the Oise Valley, the assumption being that Paris was besieged. After an hour's flight Lieut. Cheutin landed at St. Cyr, while Capt. Eteve also arrived there after a trip of two hours and a half, which, however, included a stop at Meaux. Lieut. Cayla, on a Maurice Farman, flew from Buc to Chartres, and Lieut. De Rose, on a Blériot, from Mourmelon to Vincennes. On the 5th inst. Lieut. Clavenad returned from Calais to St. Cyr, and on the following day Lieut. Delage returned from Calais to Vincennes, stopping *en route* at Marissel-les-Beauvais, while Lieut. De Rose flew over from Vincennes to St. Cyr, and Lieut. Malherbe went from St. Cyr to Etampes in accordance with orders received.

New Voisins for French Army.

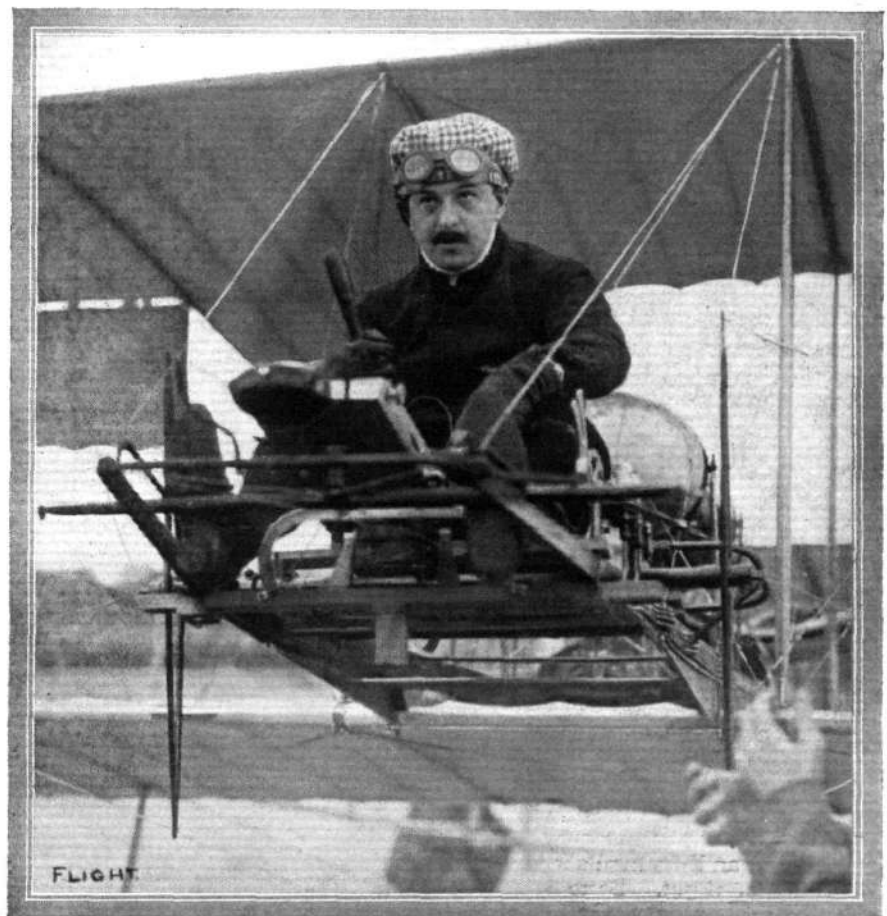
TWO new Voisin biplanes of the military type were taken over at Issy by the military authorities on the 10th inst. The conditions imposed were that a speed of 75 k.p.h. should be attained, and that an altitude of 300 metres should be gained in ten minutes. In the actual tests each machine flew for an hour, carrying a useful load of 200 kilogs., and averaged a speed of 85 k.h.p., while in the height test 400 metres was reached in eight minutes. Steel tubing is used for the framework of these machines.

The A.C.F. Grand Prix.

IT has now been practically decided that this competition, which will take the form of out-and-home trips from Paris, shall be held from the 30th inst. to the 6th August. The starts for each stage will be at 6 o'clock each morning except on the section Paris-Dieppe, when the start will be delayed to 7 o'clock.

The French Institut Aerotechnique.

ON July 6th the official inauguration of the French *Institut Aerotechnique*, which has been established through the generosity



M. Loridan, who last week broke the altitude record by rising on a Henry Farman biplane to 3,280 metres. Note the position of the pilot well in advance of the motor and planes.

of M. Deutsch de la Meurthe, took place at St. Cyr, near Versailles. A large and distinguished company assembled for the occasion, including M. Steeg, Minister of Public Instruction, M. Liard, Vice-Rector of the Academy of Paris, Prince of Monaco, General Roques, and a large number of other men well-known in connection with aviation and aeronautics, while an interested visitor was the Japanese General Noki. The Paulhan Flying Ground is close by the school and some very fine flying was seen there during the afternoon. The machines included biplanes of the Henry and Maurice Farman, the Paulhan and Wright types, and Blériot, Rep, Nieuport, and Clement-Bayard monoplanes were all to be seen in the air. These practical demonstrations, however, were not confined to aeroplanes, for the Astra dirigible, "Colonel Renard," cruised over the ground some time, while the Zodiac "Le Temps" was also carrying out some manoeuvres.

From Douai to Chartres.

HAVING received permission, Bregi left Douai on the 6th inst. with the intention of flying on his Breguet to St. Cyr, for the opening of the *Institut Aerotechnique*. Arriving at St. Cyr he saw that apparently the function was all over, and so, taking a turn in the air, he went on to Chartres, where he had dinner with his friends. On the following day he continued his journey from Chartres on to Velezy, where there is a Breguet School under the charge of Xavier Martin. He started to fly back to Chartres on the 9th, but owing to the wind descended about 4 kiloms. from Rambouillet, from where he went on to Buc later.

Memorial for Captain Ferber.

As a memorial to Captain Ferber, who, it will be remembered, met his death in connection with flying at Boulogne in September, 1909, a high monolith surmounted by a bronze flying eagle has been erected at Boulogne, and the unveiling ceremony was performed on the 9th inst. by General Roques, the French Inspector-General of Aeronautics.

A New Lady Pilot.

At the Farman School at Etampes, one of the latest pupils is Madame Denise Moore, who, during her first lesson at the end of last week, showed considerable promise.

Long Flights by French Officers.

Two fine flights were put up by officers at the Military Farman School at Bouy on the 5th inst. Lieut. Mouraux, accompanied by another officer, indulged in scouting practice over Vadenay, Cuperly La Chappe, St. Hilaire and Bouy. Lieut. Blard, on one of the racing type Henry Farman biplanes, left Bouy on his third test flight for the superior military certificate, the destination being Calais.

Flying over Lake Lucerne.

WHILE flying his "aero-taxi" over Lake Lucerne on the 4th, Maurice Herbst found the motor was not doing its best, and so he came down on the surface of the lake. It being impossible to put matters right there, it was decided to take the machine back to its shed; but during the 40 minutes it was on the water, the special floats with which it is fitted gave very satisfactory results.

Training for the "Daily Mail" Contest.

IN view of his entry for the *Daily Mail* competition, de Montalent has been putting in some good practice on his Breguet biplane at Douai. On the 7th inst. he was flying for two hours.

Mlle. Dutrieu at Mourmelon.

MDLLE. DUTRIEU has returned to Mourmelon in order to practise with one of the latest type Henry Farman machines, which she proposes to take on her forthcoming American tour. She was carried for a trip on the 7th inst. by Henry Farman, and afterwards put in some solo work on the ground. Her brother, an ex-champion cyclist, is now at Mourmelon learning to fly a Voisin.

The Farman Monoplane.

AFTER making a circuit of the ground at Mourmelon on his monoplane, Henry Farman on the 7th inst. handed it over to Fischer, who made a lengthy trip on it over the country round the camp.

New Belgian Records.

USING his Morane monoplane, Verrept, on the 7th inst., succeeded in beating the Belgian duration and distance records by covering 338 kiloms. in 4 hrs. 20 mins.

Olieslagers in Training.

HAVING received a new Blériot monoplane Jan Olieslagers has been steadily training to defend his title to the cup offered by the



A Royal and distinguished gathering at Euler's Flying School in connection with Prince Henry of Prussia's recent 50-kilom. flight. Bottom row from left to right: Mrs. Euler, Grossherzogin von Hessen, Princess Charlotte von Sachsen-Meiningen, Grossherzog Ernst Ludwig von Hessen, Princess Friedrich Karl, Prince Oskar, Princess Henry of Prussia, August Euler, Prince Sigismund. Middle row: Count Wolfskehl, Dr. Meyer, First Lieut. von Hollbach, First Lieut. Wirth, Lieut. Canter, Prince Henry of Prussia, von Bieber, Werner Dücker (pilot), Prince Bernhard von Sachsen-Meiningen, Assessor Heyne, Lieut. Vogel von Falkenstein (pupil), Hauptmann Kage (timekeeper), Assessor Dr. Meyer (pupil), First Lieut. Real (pilot). At back: von Rottenburg (pupil), Engineer Otto Reichardt (pilot).

Aero Club of Belgium. On the 4th inst. he was flying near Antwerp for 1 hour 5 minutes, while on the 5th he was out for an hour and a quarter, during which he was flying as high as 900 metres.

The Belgian Grand Prix.

QUITE a keen competition is taking place in Belgium in connection with the Grand Prix of £800, offered by the Belgian Aero Club for the Belgian aviator who covers the greatest distance in a closed circuit before August 1st next. Up to the end of last week the leader in the competition was Jan Olieslagers with 219.5 kiloms., but on Sunday Verrept, at Kiewit, covered 338.55 kiloms. in 4h. 19m. 42 $\frac{3}{4}$ s.

Point-to-Point Flying in Switzerland.

ON Sunday last Durafour, on his monoplane, flew from Avenches to Neufchatel and back, a distance of 80 kiloms.

Flying in Madagascar.

DURING a trip of an hour and a half the other day Raoult gave the inhabitants of San Tanarivo a good taste of flying. Starting from the flying ground at Androhibé, he rose to a height of 600 metres, and passing over the palaces of the Queen and the Governor, he circled over the town before coming down by the usual *vol plané*.

An Aerial Race for Ladies.

EFFORTS are being made to arrange a ladies' flying race in connection with the meeting to be held by the Harvard Aeronautical

Society at Cambridge, Mass., late in the summer. It is hoped to give quite an International touch to the affair by engaging Mdlle. Dutrieu to represent France, Mrs. James V. Martin to represent Great Britain, and Miss Emily Willard to represent the United States. Miss Willard will probably pilot a Curtiss type of machine.

An American £2,000 Prize for Ladies.

IT is announced in America that a prize of £2,000 has been offered anonymously to the first lady aviator who duplicates Mr. Charles K. Hamilton's flight between New York and Philadelphia. So far only one contestant is in sight, viz., Mrs. James V. Martin.

"Clement-Bayard IV" on her Trials.

ONE of the stipulations made by the French military authorities with regard to the new Clement-Bayard airship was that, before being accepted, she should remain in the air for at least fifteen hours. On the 5th inst. she was brought out at ten minutes to eleven at night, and manoeuvred over Compiègne and Soissons for over nine hours, landing at ten minutes past eight on the following morning. On Friday evening last she was brought out for the official trial, and started off at half-past ten with eight persons on board. Cruising continually over a circuit, the turning points of which were at Compiègne and Soissons, the dirigible remained aloft until a quarter to three on the following day. The duration of the flight was 16 hrs. 15 mins., and during that time 650 kiloms. had been covered, while the average altitude was 1,500 metres, the voyage beating all the world's records for dirigible work.

* * * * *

THE EUROPEAN CIRCUIT.

IN our last issue we were able to give the details of the progress of this race up to the time of the arrival of the various competitors at Dover, with the cross-Channel trip in front of them. Thursday of last week was devoted solely to the oversea flight. The start was at half-past four, and nine of the competitors, led by Vedrines, succeeded in getting across. These were Vedrines, whose time was 30 mins. 40 secs.; Gibert, 33 mins. 28 secs.; Kimmerling, 34 mins. 23 secs.; "Beaumont," 36 mins. 13 secs.; Vidart, 37 mins. 23 $\frac{1}{2}$ secs.; Tabuteau, 43 mins. 51 secs.; Renaux, 47 mins. 56 secs.; while Barra, who did not start till late in the morning, was credited with 2 hrs. 20 mins. 15 secs. The weather was ideal for the trip at the time of starting, although a message by wireless stated that a thick fog enveloped the other side. Neverthe-

less, all Calais turned out to welcome the returning aviators, being rewarded with a sight of seven of them arriving within half-an-hour. Duval, who had damaged his machine on landing at Lewes, decided not to continue, and returned to France by the steamer.

There were rumours that it was intended to delay the arrival in Paris until Sunday morning, but as a matter of fact the concluding stage from Calais to Vincennes was taken on the 7th inst. The start from Calais was at 6 o'clock, and "Beaumont" got away first followed by Garros, Vidart, Vedrines, Gibert, Kimmerling, Renaux, Barra, and Tabuteau at two-minute intervals. All made clean starts with the exception of Kimmerling, who had to come down in an adjacent field, slightly damaging the machine as well as getting a few bruises. He, however, had his machine repaired



EUROPEAN CIRCUIT.—Lieut. Conneau (Beaumont), the winner in the general classing of the great European Flight Circuit. The successful aviator is being congratulated just after his arrival.

at once, and was clear away half an hour later. The rules stipulated that the competitors must stop at Amiens, and the flying ground there was early filled with an enthusiastic throng of spectators. At a quarter past seven a gun was fired to indicate that the first machine was in sight. It proved to be Vidart, who, on alighting, said that the journey had been fine except that there was some fog. He was quickly followed by Gibert, Garros and Vedrines, the last-mentioned being the victim of a piece of ill-luck. Just as he landed something went wrong with the motor, and the machine capsized. Fortunately, the pilot escaped injury, and he was, in fact, able to complete the stage later on in the day. Vidart stayed only a few minutes, and he was followed away by Gibert, who was on the ground less than five minutes before he was once again in the air and away. "Beaumont" was the next arrival, but he did not stay long, and the three biplanes brought up the rear, with the exception of Kimmerring, who was somewhat late in getting to Amiens. On landing, he damaged his machine, but another one was waiting, and so he was able to continue. Vedrines resumed the journey at a quarter to eleven on the machine with which he flew to Madrid.

At Vincennes there was another huge crowd, among whom was General Roques and several other highly-placed Government officials. At half-past eight an extra sharp eye detected a speck in the sky, while the expert ear caught the sound of the unmistakable hum of a Gnome motor. Within a few seconds the news had spread round the concourse, and the cry went up "They are here!" The next question was "Who could it be?" as the news of Vedrine's accident had come through, and it was realised that he could not be the arrival. It only needed a few minutes, however, to bring the monoplane nearer into view for it to be seen that it was the Deperdussin monoplane, and of course piloted by Vidart. He landed at 8.37, and was at once carried shoulder high to the Deperdussin shed to the strain of the *Marseillaise*. There was then a delay of 7 mins. before the arrival of Gibert, who it should be remembered is the only monoplane pilot who had completed the

full distance on the one machine, whereas the others have changed their machines several times. The third to arrive was Garros, at 9.15, and then the others came in at fairly lengthy intervals, "Beaumont" being fourth at 9.26. Then came Renaux, who naturally felt proud of the fact that he was the only competitor who had taken a passenger over the full course while his Maurice Farman biplane arrived back without having a single piece of wood changed during the trip. Kimmerring was the last to arrive at Vincennes at half past ten, and in accordance with the arrangement, that any who were unable to reach Vincennes by mid-day should go to Buc, the officials pursued their way there in order to await Barra and Vedrines. Barra arrived at Vincennes at something after five o'clock in the afternoon, and after making a stop went on to Buc for the official finish, but had to land at Villejuif on the way. Vedrines reached Buc at ten minutes to eight, and after being checked in flew over to the Morane headquarters at Issy. Tabuteau had to land at Claremont-sur-Oise, from which place he went on to Luzarches and there spent the night, completing the journey to Buc the next morning. Barra's machine was like Renaux's, a Maurice Farman biplane, and this also went through the event without any of the framework having to be replaced. Although the Bristol machine on which Tabuteau was mounted did not succeed in winning any prizes, it yet showed up well, and in many of the stages it was the first of the biplanes to arrive, and another significant fact is that the machine which arrived back at Paris was the same as that which started out. The principal amounts won during the race were as follows:—

"Beaumont"	6,466	Garros	2,240	Gibert	1,360
Vidart	2,572	Vedrines	2,080		

The following table gives the cumulative times for the various stages of the nine competitors who finished. The circuit and the times of those who fell by the way, together with the particulars of all the machines, were given in our last issue.

EUROPEAN CIRCUIT.—Times for each stage of those who finished.

Place.	Pilot.	Liège (320 kils.)	Spa-Liège (60 kils.)	Utrecht (215 kils.)	Brussels (145 kils.)	Roubaix (85 kils.)	Calais (90 kils.)	London (242 kils.)	Dover (172 kils.)	Calais (40 kils.)	Paris (250 kils.)	Total time.
1	"Beaumont"	h. m. s. 4 2 45 ⁴	h. m. s. 1 24 45 ⁴	h. m. s. 2 21 4 ⁸	h. m. s. 37 21 0 ⁸	h. m. s. 1 24 25	h. m. s. 1 44 39 ³	h. m. s. 3 34 24	h. m. s. 2 25 0	h. m. s. 0 36 1	h. m. s. 3 26 15	h. m. s. 58 38 0 ⁴
2	Garros	5 3 1 ¹	2 11 37	2 10 21 ³	38 33 57 ³	1 15 56	2 36 2 ²	3 48 12	2 27 56	0 36 13	3 13 49	62 17 7 ²
3	Vidart	3 9 54 ³	0 47 6 ²	2 17 29 ⁸	54 36 22	1 58 16	1 32 8 ⁴	3 26 42	2 19 32	0 37 23	2 33 6 ²	73 32 57 ³
4	Vedrines	3 39 15 ⁶	0 42 21	22 45 52 ¹	38 0 57 ¹	0 58 46	1 16 21 ³	2 56 47	1 56 54	0 30 14	13 44 0	86 34 32
5	Gibert	25 8 4	1 51 2	2 4 25 ³	38 56 51	2 3 19	1 45 41	12 17 46	2 18 10	0 33 28	2 36 40 ²	89 42 34 ³
6	Kimmerring	22 44 35 ⁵	10 4 33 ⁶	2 35 38	37 34 38 ⁸	1 11 40	1 56 57	3 31 8	8 17 0	0 34 23	4 21 24	93 10 24
7	Renaux	13 10 0	4 4 14	11 23 57 ¹	39 49 39 ⁸	1 54 27	5 58 19	12 24 38	13 25 0	0 47 56	4 13 9	110 44 5 ²
8	Barra	4 3 34 ³	6 40 32	19 1 43 ³	61 38 54	—	—	13 54 3	3 39 0	1 59 15	12 40 48	206 2 58 ²
	Tabuteau	23 59 41 ³	22 15 47	10 55 17 ⁵	—	—	—	5 37 16	3 11 0	0 43 51	—	—

THE GERMAN NATIONAL CIRCUIT.

CONTINUING the story of this competition from where we had to break off last week, the tenth stage from Dortmund to Cassel was made on the 4th inst. Hoffmann, Volmuller, Wiencziers, Koenig, and Lindpaintner started, the first three getting through, but Koenig stopped at Paderborn, while Lindpaintner, still having trouble with his motor, decided not to go on. The next day the journey was continued to Nordhausen, and Buchner, Volmuller, Wiencziers, Hoffmann, and Koenig arrived safely, although the three last-mentioned were some six hours late. A day's rest was indulged in at Nordhausen, and the stage to Halberstadt taken on the 7th inst. Buchner was the first to get through, followed by Laitsch, Koenig, Volmuller, and Wiencziers.

The final stage on Monday last was to the Johannisthal ground near Berlin, and as this was a long one of 203 kiloms., a stop was made at Dessau. Koenig was the first away, followed by Volmuller, Buchner, and Laitsch. Two others—Wiencziers and Schauenburg—prepared to start, but the former smashed a wing, while the latter

after a preliminary circuit of the ground determined to come down. The first to arrive at Dessau was Buchner, and staying only eight minutes he easily outdistanced the other competitors, and reached Johannisthal safely with his passenger at a quarter to seven, being greeted by Prince Leopold of Prussia. Volmuller and Koenig, each also being accompanied by a passenger, arrived second and third, the latter having had to make a second stop at Truenbitzen. Laitsch was also delayed on the way, at Zahna.

The prize of £5,000 offered by the *Berliner Zeitung am Mittag* has been divided as follows:—Koenig, who covered 1,182¹/₂ kiloms., is awarded the first prize of £2,000; Volmuller, who covered 1,837¹/₂ kiloms., second, £1,250; Buchner, 1,363³/₈ kiloms., third, £500; Lindpaintner, 1,222¹/₂ kiloms., fourth, £350; Wittenstein, 941¹/₂ kiloms., fifth, £300; Wiencziers, 639 kiloms., sixth, £250; Schauenburg, 585¹/₂ kiloms., seventh, £200; and Laitsch, 572¹/₂ kiloms., eighth, £150. Thelen covered 497 kiloms., Muller 143 kiloms., and Jahnow 83 kiloms.

PIONEERS.

When we are set from earthly fetters free
And proudly to heaven's highest points arise;
When dawns the day when human eyes shall see
The final mute submission of the skies.
When man at last has paid the price so dear,
Which fate demands of progress year by year;

When every bar lies shattered in the past,
And man in truth has won the world at last.

May we at least remember thro' the years,
To honour still our noble pioneers.

Chiswick.

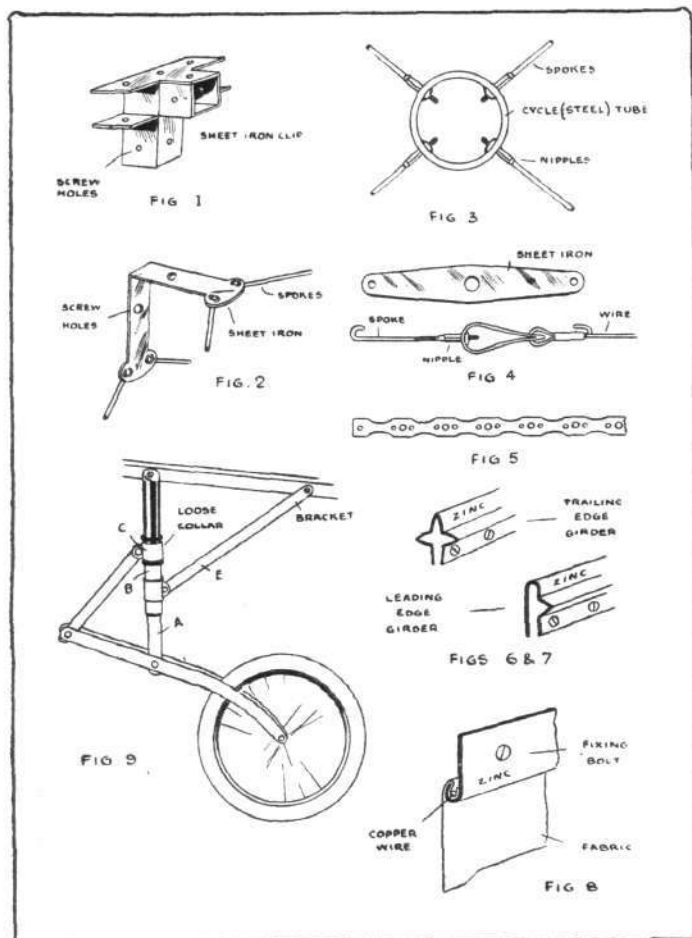
ERNEST WARDE FOX.

A POWER-DRIVEN MODEL.

By PERCIVAL A. RIDGERS.

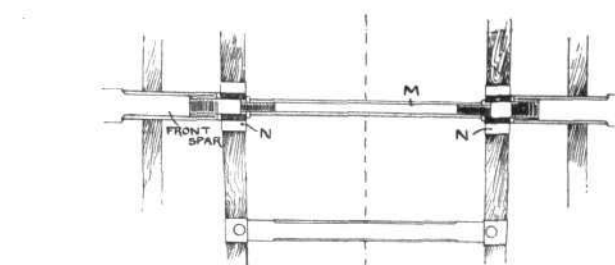
My sole object in constructing so large a model as here described is to test a mechanical device for maintaining lateral stability. As I am of opinion that it is impossible to make satisfactory tests with small models, this machine, as will be seen by the photographs, will be large enough to carry a child. It is made in four parts, viz., fuselage and chassis, two planes, and combined tail and rudder. These parts can be assembled in a few minutes, and thus renders storing and moving an

$\frac{3}{4}$ in. \times $\frac{3}{4}$ in. square at tail. The bracing spars are joined to main spars by clips, as Fig. 1 on detail. These are made of sheet iron, each clip being made from a single piece of sheet iron, which is cut and bent as sketch. This makes an exceedingly strong clip, as being without joints it cannot break. Over these clips and fixed with the same screws are other clips, as Fig. 2. These are drilled to receive heads of cycle spokes. The wire tighteners (Fig. 3) are constructed of pieces of cycle tube and spokes and nipples. The spokes are first threaded through clips (Fig. 2), and tightened by screwing up nipples which are threaded through holes in pieces of cycle tube (Fig. 3). This method allows any wire to be tightened instantly with a nipple key. The planes are each 8 ft. by 4 ft. and are double-surfaced. They each have three shaped pieces to form camber. Fitted to these are six longitudinal spars, shaped and bored for lightness (as Fig. 5). Screwed to these spars are thin battens. The whole



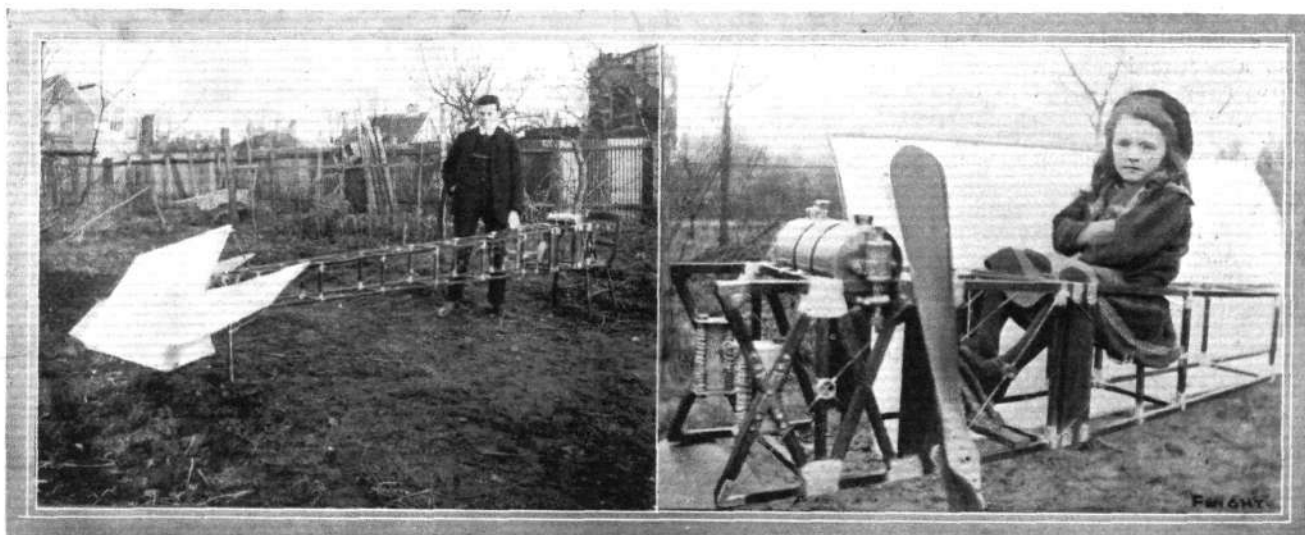
Details of Mr. Ridgers' machine.

easy matter. The undermentioned are a few of the details of construction, the majority of which are quite original. The wood used throughout is American white wood. The fuselage main spars are $\frac{3}{4}$ in. \times $\frac{3}{4}$ in. square in front, tapering to



is braced from two oval cycle tube standards by wires. Fig. 4 describes method of tightening these. Two zinc girders are used, one on leading and one on trailing edge of planes, as Figs. 6 and 7. The method of fixing canvas is shown in Fig. 8. This is a zinc strap turned up to receive fabric, along the edge of which is sewn a stout copper wire. The zinc strap is then turned down over wire, and then fixed by bolts to zinc girders. The canvas is made in two halves, and eyeletted and laced where it meets at centre. The chassis (Fig. 9) is pneumatic sprung. Centre tube A is a plunger, sliding in tube B. C is a loose collar; E is a bracket. The tail is of crucifix form, and is so made that any part can be instantly replaced in case of breakage. The propeller is 3 ft. 6 ins. long, and under tests appears to give every satisfaction. The springs seen in front of chassis were intended for a shock-absorber for a 3-h.p. Century engine, but I have since found engine not strong enough. This machine over all measures 18 ft. wide, 15 ft. long.

To successfully fly same I shall need a much stronger engine, which, perhaps, some reader of FLIGHT may be able to put me in the way of obtaining. In conclusion I must say that I cannot speak too highly of FLIGHT, from which I have obtained much useful information, and wish it every success.



Views of the machine, showing the seat for a child.

SCHOOL AERO CLUB NOTES.

By ROBERT P. GRIMMER, General Secretary, British Federation of School Aero Clubs.

I WONDER how many of even those who profess an interest in aviation really realise the immense importance of that science. They ignore its probable effects on time and space, on medicine and discovery. They cannot realise the Atlantic crossed in two days, nor the curative properties of an air voyage to an invalid. They fail to understand that aviation is going to open the most remote corners of the earth to the advance of the colonist, and they will not admit that the aeroplane will ever be of practical use in warfare. In short, they judge to-morrow by the limitations of to-day in the same manner as their grandfathers, who asserted that steam-power could never supersede any other means of locomotion. You of the younger generation will witness the triumph of aviation; you will some day experience such rapid transit as the world has never known; you may even view the navies of the nations transferred to another element. And what is more, you can afford practical help in this glorious conquest of the air, for your gliders and models will not only interest others in aviation, but may also be the means of solving many of those great problems which still confront aeronautical engineers. It is only fitting that you who will reap the harvest should assist in sowing the seed. For the future of aviation rests with the younger generation.

Recently I mentioned the fact that I was prepared to arrange demonstrations of model aeroplane flying at school and other sports, with the object of inculcating enthusiasm for aviation in districts where few or no aeroplanes had yet been seen. This has evoked a great response from all parts of the country, and fully a dozen engagements have been booked by various sports committees. If any similar body desires to introduce into their programme a novel and interesting item, and at the same time to benefit the funds of the Federation, I earnestly beg of them to communicate with me at the earliest possible date.

"I regret to say that we have not done anything this term owing to the great enthusiasm displayed for cricket." This is the kind of letter I have received lately from the secretaries of quite half a dozen school aero clubs—and it is not very encouraging. Be it understood that I have a great admiration for our national sports, but we certainly carry our enthusiasm for them too far. Can we really afford to devote all our leisure to cricket at a time when the boys of France, Germany, Austria, and Russia count their school aero clubs in hundreds? Cricket and football are admittedly splendid games, but there are occasionally times when one feels as Kipling must have felt when he wrote:—

"Still ye returned to your trinkets,
Still ye contented your souls,
With the flanneled fools at the wickets
And the muddled oafs at the goals!"

I quote the following extract from the current number of *La Feuille Sportive*, a widely read French publication:—"In England the school aero clubs are now united in a federation, which bears the name of the 'British Federation of School Aero Clubs.' The works accomplished already by some clubs, together with the influential patrons of the movement, who are the most celebrated aviators and constructors, go to prove that this association will increase in influence, and make evident its utility. It is from the ranks of the Federation that soon will be recruited the technicians and aviators, of whom England has need."

My recent remarks on freak models have brought me a great number of letters, many congratulatory, some almost abusive. I do not retract a single word, and elsewhere will be found my reply to that particular critic whose letter appeared in *FLIGHT* of last week.

CORRESPONDENCE.

. The name and address of the writer (not necessarily for publication) MUST in all cases accompany letters intended for insertion, or containing queries.

Correspondents communicating with regard to letters which they have read in *FLIGHT*, would much facilitate ready reference by quoting the number of each such letter.

Mr. Barber's Cross-Country Flight.

[1262] I have received a letter from Mr. Clift, whose make of compass I used during my flight the other day from Shoreham to Hendon, and he has asked me to state that I did not lose my way owing to any defect in the compass. I am unable to state definitely the reason for its leading me astray, but in justice to Mr. Clift I may say that in my opinion the error most probably arose from my having made some mistake in adjusting it to the course before starting. I consider Mr. Clift's compass and also his maps to be by far the best yet designed for aerial navigation. I shall continue to use them with confidence, and I think that considerable credit is due to Mr. Clift for his excellent work, which has proved of invaluable service to aviators. I shall be obliged if you will publish this letter, as it is so easy for a wrong impression to become current.

West Hendon.

H. BARBER.

Vortex Principle of Flight.

[1263] In continuation of my letter of the 17th ult. (No. 1220), I give below a necessarily short *résumé* of the existing state of knowledge regarding insect flight, in order that those of your readers who may wish to "copy nature" may start their studies on a sound basis.

The first men to make any noteworthy studies of the movements of flies' wings were Pettigrew, Marey and Senecal (*circa* 1869-70). Pettigrew's and Marey's work was published in the International Scientific Series in 1873, and can be seen in the library of the Patent Office or of the Aeronautical Society in London. Senecal, in July, 1870, read a paper which appears in the 5th Annual Report of the Aeronautical Society, pp. 40-51.

Pettigrew and Marey both used the optical method of study—a strong light was projected on the moving wing or on a bright speck attached to the tip thereof, thus rendering the path followed visible to the eye. Marey and Senecal used also the tracing method, whereby the wing tip, or a minute bristle attached thereto, is caused to scrape black pigment from a prepared surface. To enable the resulting curve to be easily read, the surface is given a uniform motion past the wing.

These three investigators arrived at results in substantial agreement on the question of the wing orbit. They found that the tip of the wing traces a figure-of-eight path in space, as shown in a diagram representing a fly hovering.

(It is unnecessary here to discuss the differences of opinion held by the above investigators on the question of the inclination of the wing to its orbital path, as this point has been elucidated subsequently.)

A further important step in the study was accomplished when, in 1903, von Lendenfeld published in Germany some photographs of insects in flight. (These were taken in bright sunlight with an exposure of $\frac{1}{2500}$ sec.) They confirmed the conclusion already arrived at, and completed a chain of evidence which the work of subsequent investigators has served simply to strengthen.

Some remarkable photographs have been taken lately, notably by Dr. Lucien Bull, who in November, 1909, and January, 1910, communicated to the Académie des Sciences, Paris, some of the results of his work. These were noticed in many scientific journals, among others, which may be found in the Patent Office, are, *La Nature*, of April 30th, 1910; *Nature*, of July 28th, 1910; *Scientific American*, of July 30th, 1910; *Knowledge*, of September 10th, 1910.

There has been published this year a very interesting work, entitled, "The Flying Apparatus of the Blow-fly." It is the result of research carried out by Dr. Wolfgang Ritter in the Zoological Laboratory of the German University at Prague, with the assistance of a grant from the Hodgkins Fund of the Smithsonian Institution (America).

A copy of this work is in the Aeronautical Society Library, and should be read by all interested in the subject. For a critical examination of it I would refer them to a review by myself which will appear in the forthcoming *Aeronautical Journal*. Dr. Ritter has obtained some good tracings of the path taken by the wing tip. He observes, page 28:—"If the fly remains in the same place in the air (hovers), as is frequently observed in the Syrphidae, each tip of the wing describes a figure eight." Mr. Dring's "gadfly" is a syrphus, and it will be interesting to see his reply to this statement of Dr. Ritter's. He will not be able to controvert it by simple opinion or emphatic assertion; the most rigid evidence alone will serve. In point of fact, there is no room nowadays for opinions or hypotheses concerning the orbit of flies' wings; the evidence is exact and overwhelming, and shows, as I said before, that they are simply oscillating propellers.

It is quite inadmissible to say, as Mr. Dring does, that Marey considered the lemniscus traced by the wing to be compounded of two circles described by the front and rear edges respectively. He did just the reverse, as Mr. Dring would be aware had he consulted Marey's book.

It is to be regretted that Mr. Dring's "years of observation and

experiment" should have resulted in so entirely fallacious a theory of insect flight as that he has described. In the hope of saving similar wasted effort on the part of others, I ask you to give similar publicity to the above-mentioned facts as you gave to Mr. Dring's article.

As regards the "vortex principle of flight" apart from insect flight, it is obvious to those conversant with the matter that the "vortex propeller" flagrantly violates the fundamental conditions of efficient propulsion and cannot but have a very low efficiency. I propose to write further on this matter, with your permission, next week.

Tooting Graveney.

BERTRAM G. COOPER.

Man-Carrying Glider.

[1264] In answer to Mr. Mallet (1243), the distance between the leading edge of the main plane and the elevator should be 10 ft.

I should advise an elevator 10 ft. by 3 ft. having a normal angle of incidence of 1.5 times that of the main plane. The control of the elevator should be so adjusted that its minimum angle is not less than two-thirds of the normal, otherwise the machine would under certain circumstances be unstable.

As regards the section of the spars, this depends largely on the design. Presumably a machine of this type having such small area would be provided with some sort of landing chassis, in which case the Valkyrie type of skid-outrigger could hardly be improved upon. For an outrigger of this type $\frac{3}{4}$ in. by $\frac{3}{4}$ in. spruce might be used throughout; if, however, two spars only are used, 1 in. by 1 in. would be necessary. As regards the planes, the front spar should be $1\frac{1}{2}$ ins. by $\frac{3}{4}$ in. and the rear 1 in. by $\frac{3}{4}$ in., both having the greatest measurement horizontal for single-surface planes, or vertical for double surface. Silver spruce might be used everywhere unless it be for the lower part of the skid, where, perhaps, ash would be an advantage. It is rather difficult to give advice with the meagre data supplied by Mr. Mallet. If, however, he cares to communicate with me, I have no doubt I shall be able to give him some useful hints as regards construction and design.

Woolston.

J. D. NORTH.

Experiments with Flight Propellers.

[1265] Some weeks ago you published a letter from Mr. A. V. Roe containing a really praiseworthy proposition, which I for one confidently anticipated would have met with immediate response. Briefly, he offers to test in actual flight on a tried machine different propellers of various design, with a view to evolving one superior to all others.

The really ideal conditions of testing propellers so kindly advanced by Mr. Roe, *i.e.*, under true flight conditions in the air itself, should commend itself to all I should imagine. Should Mr. Roe's proposition still hold good I personally would be very pleased indeed to enter a new type of propeller, 7 ft. diameter, built of white wood, and should be glad if he will inform me of size of bore for shaft. The results of these tests of various designs in England should be of value throughout the civilised world where flight is proceeding, particularly when we consider that as a nation the British have in reality accomplished little in *practical* aero-dynamics so far compared with France.

There is another point connected with propellers which I should like to bring forward. Mr. T. W. K. Clarke claims the record for highest efficiency, *viz.*, 81.6 per cent. obtained by one of his propellers, tested by Messrs. Vickers, Ltd. May I inquire if this propeller was tested against others of *precisely equal* diameters, pitch, weight, and form? If so, what were the results as compared with that of Mr. Clarke's?

EDGAR E. WILSON.

Races and Prizes.

[1266] Are we mothering our infant industry, aviation, correctly? In my opinion, considering the long-distance flights men and machines are capable of, we are not organising our flying races on lines which are calculated to bring to perfection both types of machine, biplane and monoplane, because the conditions under which our present flying races are held only favour one class of machine, the machine of speed, the monoplane; thereby doing a great injustice to the men who are putting both time and money into the perfection of the biplane. Not that I am interested in the one type of machine any more than the other, but if we are to have flying races, let us organise them along lines which will give both types of machine an equal chance of competing for the prizes which are being offered. I think if we organised our flights in a manner which I now submit, that is, the dividing of the prize money, half of it going to the first monoplane to finish the course, the other half going to the first biplane to finish, it would give the men of the biplane class, a type of machine which is

slower than the monoplane, some encouragement to enter into these long-distance flights. We must not forget the fact that these long-distance flights are going to be the means of the perfection of the aeroplane, for the simple reason of the splendid opportunities they offer for the finding out of the good and bad qualities of a machine whilst flying under such strenuous conditions. The flying over long courses means that the flying has got to be carried over a period of two, three, or more days, which is the finest thing possible for the finding out of the faults of a machine on account of the different weather conditions which prevail on different days, and also the different air currents which are experienced over different kinds of country. That is why I say the races should be organised so as to give both types of machine an equal chance of competing, so that each may have the same opportunity of gaining the valuable information that these flights offer for the perfection of these machines. Another thing is the offering of too big a prize for one race such as the *Daily Mail* £10,000 prize. I think if this money were divided into two £5,000 races it would be a greater benefit to the aviation industry, because there is more to be learnt in two 1,000 mile races than in a single 1,000 mile race, and I don't see why such prizes are not worth going for here in England when they are competed for on the Continent, and flown for by experienced men in the aviation world.

Birmingham.

H. HARRISON AND E. BRIDGES.

Flying Bulletins.

[1267] Surely some means could be found of letting the public know when flying is impossible, owing to weather or other circumstances, at Brooklands or Hendon, so that a long and none too easy journey may be avoided in the vain hope of seeing some flying. Perhaps some arrangement might be made whereby notices would be placed in various parts of London (if I might suggest it, Messrs. Keith, Prowse and Co.'s various offices might be used for this purpose), saying whether there would be flying or not. The cause of my writing this is that on last Saturday afternoon I spent, or rather wasted, several hours at Brooklands seeing one machine (the Howard Wright) only in the air, though there was not enough wind to stir the flags hardly, and this in spite of the fact that advertisements promise flying every fine day at Brooklands.

London.

A. E. DUNBAR.

MODELS.

Model Duration Records.

[1268] *Re* letter No. 1259, of Mr. Grimmer. Evidently Mr. Grimmer does not think it possible for anyone to beat the Grimmer-Mann monoplane, which has been timed to have done 74 secs. duration. In regard to the last part of his letter he congratulates D. Holmes on the success of his Holmes-Ridley plane on Mitcham Common. If the suggestion is that I do not construct my own machines myself, the suggestion is absolutely false. Moreover, the one I used at Mitcham was the same one with which I secured a first prize at the Crystal Palace.

Thames Ditton.

C. B. RIDLEY.

[1269] May I call your attention to a slight printer's error which occurred in your publication of my letter (No. 1260) in *FLIGHT* last week? The word "Flemings" was printed "Hamings," a mistake which I think must have puzzled anyone who professes to know all the most successful models by name.

Mr. C. B. Ridley seems to have aroused Mr. Grimmer's curiosity, by reporting in *FLIGHT* last week the times of three record flights which I made with one of my models on June 23rd. For the benefit of any who may be inclined to doubt their authenticity, I may say, if any better testimony than that of a disinterested rival is required, that the last two durations were checked by a second independent witness, and that the model I used was a light one, which I find has great advantages over the heavy type for duration, although it is handicapped in most open competitions.

Mr. Grimmer's prize offer is indeed a generous one, and reflects great credit on his desire to advance the progress of model aeronautics. I venture to think, however, that the possibility of my repeating the record is less remote than he supposes, and I shall be very pleased to make the attempt in his presence.

Thames Ditton.

D. C. HOLMES.

What are Freak Models?

[1270] *Re* letter 1260, I am greatly obliged to Mr. D. C. Holmes for his criticism of my remarks in a recent instalment of "School Aero Club Notes" on the subject of freak models.

In the first place, Mr. Holmes states that I am not a "practical designer of flying models." He may care to learn that so far back as eight years ago I constructed a machine that foreshadowed the successful monoplanes of to-day, and he is presumably quite aware of the fact that my work in connection with the school aero club movement has left me little time for personal experiment during the last three years.

He goes on to say that my observations would "damage the reputation of almost every successful model aeroplane," of which more hereafter, and then queries my statement that two ounces of rubber on a three-ounce machine means inefficiency by suggesting that full-sized aeroplanes carry a similar proportion of petrol. Would Mr. Holmes assert that the motor and petrol of one of the old-type biplanes weighing approximately half a ton would turn the scale at over 6 cwt., or that the "Cody" machine weighing a ton would have for its motive power an engine and petrol supply to the weight of 13 cwt.? Is it a fact that the power plant of a "Demoiselle" weighing 4 cwt. would run to 2½ cwt., and that of a 6 cwt. Blériot-Anzani would be 4 cwt.? Surely not!

We can pass by the useful information about mechanical and chemical energy, of which Mr. Holmes seems to assume that I am ignorant. If full-sized machines were fitted with rubber motors the next paragraph might be interesting, but, as it is, it only gives some very practical information on the designing of freak distance and duration models.

Mr. Holmes admits that one has a choice between using long fuselages and big screws. I am quite aware that big screws are easier to make efficient than smaller ones, but as it is impracticable to employ propellers beyond a certain size in full-sized machines, I consider that a 16 in. span with two 12-in. screws is quite disproportionate, and that a model built on such lines can serve no useful purpose to aviation. Therefore, of the two evils I choose the lesser, and lengthen the fuselage, but I would not recommend even this if it could in any way be avoided.

Mr. Holmes rates model makers very low if he considers that their sole aim is to win prizes in contests. Mr. Holmes candidly admits that his great ambition lies in the direction of a "cash prize," but there are others who have not the same ideals. There are model makers (I have many such in mind as I write), who do not care the proverbial twopence about "cash prizes" as long as they consider that they have done something to advance the great science of aviation.

The present methods of rating for contests certainly encourage the model maker simply out to win, and it seems to me that surface, weight and span rating ought to give way to a combined rating of propeller diameter and weight of elastic. For example, the machine that could maintain the best duration with one ounce of elastic and two 8-inch screws would certainly be the most efficient. I am afraid, however, that such a rating, which is, by the way, approved of by individuals whom even Mr. Holmes would admit to be "practical designers" would not greatly appeal to "freak modelists."

Mr. Holmes refers to the "Hamings" model as a typical "freak." Personally I am not acquainted with a machine of this name, but the dimensions seem to approximate to those of the "Fleming-Williams." Leaving out the long fuselage, a regrettable but necessary evil, we have left in the full-sized prototype a 16 ft. span with two 8 ft. screws. This is not a "freak," and there is no reason why such a machine would not fly, which is a greater feat than a machine of similar span with two 12 ft. screws would be capable of performing.

Mr. Holmes concludes his letter with a sneer at the "Mann" monoplane, which is the outcome of three years of arduous experiment, but even with the "freak," of which he is presumably so proud, he has not been able to win nine prizes in public contests, nor to put up official flights of 2,000 ft. and 74 seconds.

Surbiton.

ROBERT P. GRIMMER.

[* See Mr. Holmes' letter No. 1269.—ED.]

International Model Contest.

[1271] I am delighted to learn from your issue of July 8th that such a contest as the above is being arranged. Any such contest as this must of necessity be got up by some particular club or party. In an international contest of this character it is earnestly to be hoped that this fact will not prevent others from doing everything they can to make it an unqualified success. I am perfectly certain that British model makers will be able to show their superiority in this branch of aviation, and I trust that no stone will be left unturned to enable them to do so. So far as the professional model is concerned, it would at any rate be some compensation to the damage done to his business, by the importation of inefficient and more or less worthless models, which have done so much in the past to disgust many a youth with this art.

Streatham.

V. E. JOHNSON.

PAPER MODELS.

[1272] Enclosed is a sketch of a peculiar form of paper model that may interest your readers, as it has extraordinary stability, especially under conditions that are generally disastrous to most



models, that is to say, when forcibly launched by hand. It is also very strong, the leading edge being made of 24 gauge steel wire.

Hanwell.

L. ROCHE.



PUBLICATIONS RECEIVED.

Smithsonian Miscellaneous Collections. Vol. 56, No. 12. *Hodgkins Fund. "The Flying Apparatus of the Blow-Fly."* By Dr. Wolfgang Ritter. Washington, D.C., U.S.A.: The Smithsonian Institution.

Essai d'Aerodynamique du Plan. By Armand de Gramont, Duc de Guiche. Paris: Librairie Hachette et Cie., 79 Boul. Saint-Germain.

All About Patents: a Practical Guide for Inventors, &c. By C. W. Crossley. Guildford: Billings and Sons, Ltd. Price 9d. net.

Federation Aeronautique Internationale: Commission Internationale de la Carte Aeronautique. Conference at Brussels, May, 1911. Brussels: Aero Club de Belgique, 6 Avenue Marnix.



Aeronautical Patents Published.

Applied for in 1910.

Published July 20th, 1911.

- 15,308. P. SCHNEIDER. Aeroplanes.
- 24,795. A. ROHDE. Flying machines.
- 26,340. J. WETTERWALD. Automatic control for aeroplanes.



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